STN Columbus

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Welcome to STN International
NEWS
                  Web Page for STN Seminar Schedule - N. America
                  WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS
          MAR 15
NEWS
          MAR 16
                  CASREACT coverage extended
      3
NEWS
          MAR 20
                  MARPAT now updated daily
          MAR 22
NEWS
                  LWPI reloaded
          MAR 30
                 RDISCLOSURE reloaded with enhancements
NEWS
                  JICST-EPLUS removed from database clusters and STN
NEWS
      7
          APR 02
NEWS
      8
          APR 30
                  GENBANK reloaded and enhanced with Genome Project ID field
                  CHEMCATS enhanced with 1.2 million new records CA/CAplus enhanced with 1870-1889 U.S. patent records
NEWS
          APR 30
NEWS 10
          APR 30
                  INPADOC replaced by INPADOCDB on STN
NEWS 11
          APR 30
NEWS 12
          MAY 01
                  New CAS web site launched
NEWS 13
                  CA/CAplus Indian patent publication number format defined
          MAY 08
 NEWS 14
          MAY 14
                  RDISCLOSURE on STN Easy enhanced with new search and display
                  fields
          MAY 21
NEWS 15
                  BIOSIS reloaded and enhanced with archival data
NEWS 16
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                  TOXCENTER enhanced with BIOSIS reload
          MAY 21
NEWS 17
                  CA/CAplus enhanced with additional kind codes for German
                  patents
NEWS 18
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                  patents
NEWS 19
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NEWS 20
          JUN 29
                  STN Viewer now available
NEWS 21
          JUN 29
                  STN Express, Version 8.2, now available
 NEWS 22
          JUL 02
                  LEMBASE coverage updated
NEWS 23
          JUL 02
                  LMEDLINE coverage updated
                  SCISEARCH enhanced with complete author names
 NEWS 24
          JUL 02
                  CHEMCATS accession numbers revised
 NEWS 25
          JUL 02
NEWS 26
          JUL 02 CA/CAplus enhanced with utility model patents from China
               29 JUNE 2007: CURRENT WINDOWS VERSION IS V8.2,
NEWS EXPRESS
               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 05 JULY 2007.
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     Preparation of a lipid complex for transmucosal drug delivery of gene or
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IN
     Wei, Xiaohui; Xu, Yuhong
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     Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp.
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     Wet-micro grinding for preparing a antitumor-lipid complex
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     Fu, Shu-Wen; Cheng, Chien-Hsin D.; Cheng, Jui-Ching; Hsiau, Yun-Yi
TN
     Peop. Rep. China
U.S. Pat. Appl. Publ., 5 pp.
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     131:346112 CA
     Preferential Distribution of Amphotericin B Lipid Complex into Human HDL3
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     Is a Consequence of High Density Lipoprotein Coat Lipid Content
     Kennedy, Allison L.; Wasan, Kishor M.
ΑU
     Division of Pharmaceutics and Biopharmaceutics Faculty of Pharmaceutical
CS
     Sciences, The University of British Columbia, Vancouver, BC, Can.
     Journal of Pharmaceutical Sciences (1999), 88(11), 1149-1155
SO
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     American Chemical Society
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AN
     130:119111 CA
     A comparative analysis of lipid-complexed and liposomal amphotericin B
ΤI
     preparations in hematological oncology
ΑU
     Clark, A. D.; McKendrick, S.; Tansey, P. J.; Franklin, I. M.; Chopra, R.
CS
     Glasgow Royal Infirmary, Glasgow, UK
     British Journal of Haematology (1998), 103(1), 198-204
SO
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     Blackwell Science Ltd.
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     Sugimoto, Tetsuro; Kajiwara, Maya; Chiba, Shuichi; Misawa, Yasuyuki; Niki,
ΑU
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     Toxicology Research Laboratories, Chugai Pharmaceutical Co., Ltd., Nagano,
CS
     399-46, Japan
     Journal of Toxicologic Pathology (1994), 7(3), 403-7
SO
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PB
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LA
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     118:225001 CA
     Direct connection between myelinosomes, endoplasmic reticulum and nuclear
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     envelope in mouse hepatocytes grown with the amphiphilic drug, quinacrine
     Prince, J. S.; Kohen, C.; Kohen, E.; Jimenez, J.; Brada, Z.
ΑU
     Biol. Dep., Univ. Miami, Coral Gables, FL, 33124, USA
CS
     Tissue & Cell (1993), 25(1), 103-10 CODEN: TICEBI; ISSN: 0040-8166
SO
DT
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LA
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AN
     118:139187 CA
     Roles of liposome composition and temperature in distribution of
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     amphotericin B in serum lipoproteins
     Wasan, Kishor M.; Brazeau, Gayle A.; Keyhani, Afsaneh; Hayman, Alan C.;
AU
     Lopez-Berestein, Gabriel
     Dep. Pharm., Univ. Houston, Houston, TX, 77030, USA
CS
     Antimicrobial Agents and Chemotherapy (1993), 37(2), 246-50
SO
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ANSWER 8 OF 18 CA COPYRIGHT 2007 ACS on STN

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     Accessibility of aminoglycosides, isolated and in interaction with
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     phosphatidylinositol, to water. A conformational analysis using the concept of molecular hydrophobicity potential
Mingeot-Leclerco, M. P.; Tulkens, P. M.; Brasseur, R.
ΑU
CS
     Lab. Chim. Physiol., Univ. Cathol. Louvain, Brussels, Belg.
     Biochemical Pharmacology (1992), 44(10), 1967-75
SO
     CODEN: BCPCA6; ISSN: 0006-2952
DT
     Journal
LA
     English
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Full Text
     117:157510 CA
AN
     Amphotericin B-phospholipid interactions responsible for reduced mammalian
TI
     cell toxicity
ΑU
     Perkins, Walter R.; Minchey, Sharma R.; Boni, Lawrence T.; Swenson,
     Christine E.; Popescu, Mircea C.; Pasternack, Robert F.; Janoff, Andrew S.
     Liposome Co. Inc., Princeton, NJ, 08540, USA
CS
     Biochimica et Biophysica Acta, Biomembranes (1992), 1107(2), 271-82
SO
     CODEN: BBBMBS; ISSN: 0005-2736
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     115:189688 CA
AN
     Novel antifungal drug delivery: stable amphotericin B-cholesteryl sulfate
TI
     Guo, Luke S. S.; Fielding, Robert M.; Lasic, Danilo D.; Hamilton, Robert
ΑU
     L.; Mufson, Daniel
     Liposome Technol. Inc., Menlo Park, CA, 94025, USA
CS
     International Journal of Pharmaceutics (1991), 75(1), 45-54
SO
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      115:35583 CA
     Liposomal amphotericin B inhibits in vitro T-lymphocyte response to
ΤI
     Boggs, J. M.; Chang, N. H.; Goundalkar, A.
ΑU
     Res. Inst., Hosp. Sick Child., Toronto, ON, M5G 1X8, Can. Antimicrobial Agents and Chemotherapy (1991), 35(5), 879-85
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      Interaction of antimycobacterial and antipneumocystis drugs with
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     phospholipid membranes
     Pedroso de Lima, Maria C.; Chiche, Bich H.; Debs, Robert J.; Duzgunes,
ΑU
     Cancer Res. Inst., Univ. California, San Francisco, CA, 94143-0128, USA
SO
     Chemistry and Physics of Lipids (1990), 53(4), 361-71
     CODEN: CPLIA4; ISSN: 0009-3084
DT
     Journal
LA
     English
     ANSWER 13 OF 18 CA COPYRIGHT 2007 ACS on STN
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Full Text
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      111:219283 CA
ΤI
     Method for size separation of particles such as drug-containing liposomes
     Lenk, Robert P.; Durning, Anthony G.; Klimchak, Robert J.; Portnoff, Joel;
TN
     Tomsho, Michelle L.
PΑ
     Liposome Co., Inc., USA
     PCT Int. Appl., 40 pp.
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     110:219106 CA
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     Drug-lipid complexes and a method for their preparation in aqueous
     Janoff, Andrew S.; Boni, Lawrence; Madden, Thomas; Cullis, Pieter R.; Lenk, Robert P.; Kearns, John J.; Durning, Anthony G.
IN
     Liposome Co., Inc., USA
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Full Text
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     108:226691 CA
     Scale-up of liposome products
     Klimchak, Robert J.; Lenk, Robert P.
ΑU
     Liposome Co., Inc., Princeton, NJ, 08540, USA
CS
     BioPharm Manufacturing (1988), 1(2), 18-21
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     CODEN: BIMAEV; ISSN: 1040-8045
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AN
     Phospholipase inactivation induced by an amino-piperazine derivative: a
     study at the lipid-water interface
     Defrise-Quertain, F.; Chatelain, P.; Ruysschaert, J. M.
ΑU
     Lab. Chim. Phys. Macromol., Univ. Libre Bruxelles, Brussels, Belg.
CS
     Journal of Pharmacy and Pharmacology (1978), 30(10), 608-12
     CODEN: JPPMAB; ISSN: 0022-3573
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     68:112837 CA
     Retention or efflux of phthalanilide (NSC 60339). Lipid complexes by
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     sensitive or resistant murine tumor cells and Escherichia coli B
     Yesair, David W.; HoFook, Carmen
Life Sci. Div., Arthur D. Little, Inc., Cambridge, MA, USA
CS ·
     Cancer Research (1968), 28(2), 314-19
     CODEN: CNREA8; ISSN: 0008-5472
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     62:77248 CA
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     Search for metabolites of antileukemic phthalanilides,
     2-chloro-4',4''-his(2-imidazolin-2-yl)terephthalanilide (NSC-60339) and
     2-amino-4',4 ''-bis(2-imadazolin-2-yl)terephthalanilide dihydrochloride
     (NSC-50469)
     Booth, J.; Boyland, E.; Gellhorn, A.
ΑU
     Roy. Cancer Hosp., London
CS
     Cancer Chemotherapy Rept. (1964), No. 43, 11-8
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 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 => d his
      (FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)
      FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007
 L1
              18 S (DRUG-LIPID COMPLEX?)
              18 S (DRUG-LIPID COMPLEX?) / AB, BI
 L2
      FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007
              42 S (DRUG-LIPID COMPLEX?)
 L3
 L4
               3 S (DRUG-LIPID COMPLEX?)/CLM
 L5
           37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
            1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
 L6
               2 S L3 AND L5
 L7
=> s 14 and 16
              1 L4 AND L6
 L8.
 => d
      ANSWER 1 OF 1 USPATFULL on STN
 1.8
 Full Text
        2005:195837 USPATFULL
 ΑN
 ΤI
        Wet-micro grinding
        Fu, Shu-Wen, Hsin Chu City, CHINA
 TN
        Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
        Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
        Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
                          A1 20050804
A1 20040129 (10)
 PΙ
        US 2005169978
 ΑI
        US 2004-769118
 DT
        Utility
 ES
        APPLICATION
 LN.CNT 435
        INCLM: 424/450.000
 INCL
        INCLS: 514/034.000; 514/283.000; 514/449.000
        NCLM: 424/450.000
 NCL
        NCLS: 514/034.000; 514/283.000; 514/449.000
 IC
         [7]
         ICM
               A61K009-127
               A61K009-16; A61K009-50
        ICS
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 => d his
       (FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)
      FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007
 L1
              18 S (DRUG-LIPID COMPLEX?)
 L2
               18 S (DRUG-LIPID COMPLEX?)/AB, BI
      FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007
               42 S (DRUG-LIPID COMPLEX?)
 L3
                3 S (DRUG-LIPID COMPLEX?)/CLM
 L4
            37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
 L5
            1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
 L6
                2 S L3 AND L5
 L7
                1 S L4 AND L6
 L8
```

=> d 17 an ti in pi kwic 2

```
ANSWER 2 OF 2 USPATFULL on STN
L7
Full Text
         95:13613 USPATFULL
AN
         Solid care therapeutic compositions and methods for making same
TI
         Chagnon, Mark S., Pelham, NH, United States
TN
         Ferris, John R., Newburyport, MA, United States
         Hamilton, Tracy J., Salem, NH, United States Rudd, Edwin A., Salem, NH, United States
         Carter, Michelle J., Derry, NH, United States
                                      19950214
PT
         US 5389377
SUMM
            . . used to treat cancer and infectious diseases. The use of
         liposomes and other lipid structures, such as micro-emulsions, micelles,
         and drug/lipid complexes, for drug delivery has been widely
         proposed. Such lipid structures, and particularly liposomes, have the potential for providing controlled release. . .
                . collect the crystal between washes. The crystals are then
DETD
         milled to a more controlled particle size, for example, in a ball mill, under conditions sufficient to form 50 Angstroms or lower
         particle size. See, commonly assigned U.S. Pat. No. 5,071,076, and
         copending.
         . . . Fe_3 O_4 :acid equal to 2:1 weight percent. After mechanically milling the mixture for 1 to 1.5 hours on a ball mill
DETD
         with 4 mm glass media, the acid coated particles collapse around the
         media allowing for easy removal of water without. .
 => s phosphilipid?
               20 PHOSPHILIPID?
 => s phosphilipid?
              20 PHOSPHILIPID?
 => s phospholipid?
           50032 PHOSPHOLIPID?
 => s phospholipid?/clm
 L12
             5315 PHOSPHOLIPID?/CLM
 => s 15 and 111
              478 L5 AND L11
 => s 16 and 112
                9 L6 AND L12
 L14
 => d 1-9
 L14 ANSWER 1 OF 9 USPATFULL on STN
 Full Text
 ΑN
         2006:33785 USPATFULL
         Carrier particles for use in dry powder inhalers Staniforth, John Nicholas, Bath, UNITED KINGDOM
 ΤI
 TN
         Vectura Limited, Chippenham, UNITED KINGDOM (non-U.S. corporation)
 PA
         US 2006029552 A1 20060209

US 2005-202741 A1 20050811 (11)

Continuation of Ser. No. US 2002-306865, filed on 27 Nov 2002, PENDING
 PΙ
 ΑI
 RLI
         Continuation of Ser. No. US 2000-680863, filed on 6 Oct 2000, GRANTED,
         Pat. No. US 6521260 Continuation of Ser. No. US 1997-875391, filed on 25
         Sep 1997, GRANTED, Pat. No. US 6153224 A 371 of International Ser. No. WO 1996-GB215, filed on 31 Jan 1996
         GB 1995-1841
                                 19950131
 PRAI
         GB 1995-21937
                                 19951026
 DT
         Utility
         APPLICATION
 FS
 LN.CNT 1456
 INCL
         INCLM: 424/046.000
         INCLS: 514/053.000
 NCL
         NCLM:
                  424/046.000
         NCLS:
                  514/053.000
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

L14 ANSWER 2 OF 9 USPATFULL on STN

```
Full Text
       2005:195837 USPATFULL
AN
TI
       Wet-micro grinding
IN
       Fu, Shu-Wen, Hsin Chu City, CHINA
       Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
       Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
       Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
                             A1 20050804
PΙ
       US 2005169978
ΑI
       US 2004-769118
                             A1
                                 20040129 (10)
DT
       Utility
FS
       APPLICATION
LN.CNT 435
INCL
       INCLM: 424/450.000
       INCLS: 514/034.000; 514/283.000; 514/449.000
NCL
               424/450.000
       NCLM:
       NCLS:
               514/034.000; 514/283.000; 514/449.000
IC
        [7]
        ICM
               A61K009-127
       ICS
               A61K009-16; A61K009-50
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 3 OF 9 USPATFULL on STN
Full Text
AN
        2004:15020 USPATFULL
       Method for producing powdery particle-reduced formulations with the aid
ΤТ
       of compressed gases
IN
       Heidlas, Jurgen, Trostberg, GERMANY, FEDERAL REPUBLIC OF
       Ober, Martin, Altenmarkt, GERMANY, FEDERAL REPUBLIC OF
       Wiesmuller, Johann, Garching, GERMANY, FEDERAL REPUBLIC OF
       Degussa AG, Trostberg, GERMANY, FEDERAL REPUBLIC OF (non-U.S.
PA
        corporation)
       US 6680284
                                  20040120
PΤ
                              B1
       WO 2001003671
                        20010118
                                  20020103 (10)
AΙ
       US 2002-30035
       WO 2000-EP6709
                                  20000713
PRAI
       DE 1999-19932648
                              19990713
       DE 1999-19960167
                              19991214
DT
       Utility
        GRANTED
FS
LN.CNT 451
INCL
        INCLM: 504/367.000
        INCLS: 424/489.000; 424/499.000; 424/500.000; 424/501.000; 424/502.000;
               514/959.000; 516/001.000; 516/114.000; 516/922.000; 516/928.000
       NCLM:
               504/367.000
NCL
               424/489.000; 424/499.000; 424/500.000; 424/501.000; 424/502.000; 514/959.000; 516/001.000; 516/114.000; 516/922.000; 516/928.000
       NCLS:
IC
        [7]
        T CM
               A01N025-12
               A61K009-16; B01J003-00
        ICS
        424/489; 424/499; 424/500; 424/501; 424/502; 514/951; 504/367; 516/1; 516/114; 516/922; 516/928
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 4 OF 9 USPATFULL on STN
Full Text
        2003:243774 USPATFULL
AN
        Carrier particles for use in dry powder inhalers
ΤI
IN
        Staniforth, John Nicholas, Bath, UNITED KINGDOM
PΑ
        Vectura Limited, London, UNITED KINGDOM (non-U.S. corporation)
PΙ
        US 2003170183
                                  20030911
                              A1
       US 7011818
                                  20060314
                              B2
       US 2002-306865
AΤ
                             'A1 20021127 (10)
        Continuation of Ser. No. US 2000-680863, filed on 6 Oct 2000, GRANTED,
RLI
       Pat. No. US 6521260 Continuation of Ser. No. US 1997-875391, filed on 25 Sep 1997, GRANTED, Pat. No. US 6153224 A 371 of International Ser. No.
        WO 1996-GB215, filed on 31 Jan 1996, UNKNOWN
PRAI
        GB 1995-1841
                              19950131
        GB 1995-21937
                              19951026
DT
       Utility
       APPLICATION
FS
LN.CNT 1513
        INCLM: 424/046.000
INCL
```

```
NCL
        NCLM:
                424/045.000; 424/046.000
                424/046.000; 424/452.000; 424/489.000; 424/490.000; 514/561.000
        NCLS:
TC
        [7]
        ICM
                A61L009-04
        ICS
                A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 5 OF 9 USPATFULL on STN
Full Text
        2002:90568 USPATFULL
ΑN
ΤI
        Milled particles
        Verhoff, Frank, Cincinnati, OH, UNITED STATES
Pace, Gary W., Winchester, MA, UNITED STATES
Snow, Robert A., West Chester, PA, UNITED STATES
IN
        Millar, Fay, Ladson, SC, UNITED STATES
US 2002047058 A1 20020425
ΡI
        US 6634576
                               B2 20031021
        US 2001-940864
AΙ
                               A1 20010829 (9)
        US 2000-229042P
                               20000831 (60)
PRAI
DT
        Utility
        APPLICATION
FS
LN.CNT 4197
INCL
        INCLM: 241/026.000
        INCLS: 424/489.000
                241/021.000; 241/026.000
NCL
        NCLM:
                241/184.000; 424/489.000
        NCLS:
IC
        [7]
                B02C017-00
        ICM
        ICS
                A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 6 OF 9 USPATFULL on STN
Full Text
        2002:7196 USPATFULL
AN
        Media milling
TΙ
        Verhoff, Frank H., Cincinnati, OH, UNITED STATES
TN
        Snow, Robert A., West Chester, PA, UNITED STATES
        Pace, Gary W., Winchester, MA, UNITED STATES
                               A1 20020110
B2 20030812
PΙ
        US 2002003179
        US 6604698
                               A1 20010510 (9)
        US 2001-852054
AΙ
        US 2000-203366P
                               20000510 (60)
PRAI
DT
        Utility
FS
        APPLICATION
LN.CNT 2454
        INCLM: 241/021.000
INCL
        INCLS: 241/172.000
NCL
        NCLM: 241/021.000
                241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
        NCLS:
IC
        [7]
        ICM
                B02C017-16
     ANSWER 7 OF 9 USPATFULL on STN
L14
Full Text
ΑN
        1999:4081 USPATFULL
        Pharmaceutical nanosuspensions for medicament administration as systems
TI
        with increased saturation solubility and rate of solution
        Muller, Rainer H., Berlin, Germany, Federal Republic of Becker, Robert, Biberach, Germany, Federal Republic of
TN
        Kruss, Bernd, Hochdorf, Germany, Federal Republic of
Peters, Katrin, Berlin, Germany, Federal Republic of
        Medac Gesellschaft Fur Klinische Spezialpraparate, Hamburg, Germany,
PA
        Federal Republic of (non-U.S. corporation)
ΡI
        US 5858410
                                    19990112
        WO 9614830
                      19960523
        US 1997-836305
                                    19970619 (8)
ΑI
        WO 1995-EP4401
                                    19951109
                                    19970619
                                               PCT 371 date
                                    19970619
                                               PCT 102(e) date
PRAI
        DE 1994-4440337
                               19941111
        Utility
DТ
FS
        Granted
```

```
LN.CNT 1289
       INCLM: 424/489.000
INCL
        INCLS: 424/491.000; 424/493.000; 424/494.000; 424/495.000; 424/499.000
NCL
       NCLM:
               424/489.000
               424/491.000; 424/493.000; 424/494.000; 424/495.000; 424/499.000
IC
        [6]
        ICM
               A61K009-14
        424/489; 424/491; 424/493; 424/494; 424/495; 424/499
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 8 OF 9 USPAT2 on STN
Full Text
        2002:90568 USPAT2
ΑN
TΤ
       Milled particles
       Verhoff, Frank, Cincinnati, OH, United States
Pace, Gary W., Winchester, MA, United States
IN
        Snow, Robert A., West Chester, PA, United States
       Millar, Fay, Ladson, SC, United States
       RTP Pharma Inc., Durham, NC, United States (U.S. corporation)
DA.
                             B2 20031021
PΙ
       US 6634576
       US 2001-940864
                                  20010829 (9)
ΑI
       US 2000-229042P
PRAT
                              20000831 (60)
       Utility
        GRANTED
FS
LN.CNT 4045
INCL
        INCLM: 241/021.000
        INCLS: 241/184.000
               241/021.000; 241/026.000
NCL
       NCLM:
               241/184.000; 424/489.000
        NCLS:
TC
        [7]
        ICM
               B02C012-14
        241/21; 241/184; 241/171; 241/172; 241/23; 241/24.12
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L14 ANSWER 9 OF 9 USPAT2 on STN
Full Text
AN
        2002:7196 USPAT2
ΤI
        Media milling
        Verhoff, Frank H., Cincinnati, OH, United States
Snow, Robert A., West Chester, PA, United States
IN
        Pace, Gary W., Raleigh, NC, United States
        SkyePharma Canada, Inc., Montreal, CANADA (non-U.S. corporation)
PA
        US 6604698
                             B2 20030812
PΙ
        US 2001-852054
                                  20010510 (9)
ΑI
        US 2000-203366P
                              20000510 (60)
PRAI
DT
        Utility
        GRANTED
FS
LN.CNT 2454
        INCLM: 241/021.000
INCL
        INCLS: 214/184.000
NCL
        NCLM:
               241/021.000
               241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
        NCLS:
IC
        [7]
        ICM
               B02.C017-16
        ICS
               B02C019-12
        214/184; 214/172; 214/171; 214/30; 214/21; 214/18; 214/57; 214/62;
EXF
        424/450
=> d an ti in pa pi kwic 1-9
L14 ANSWER 1 OF 9 USPATFULL on STN
Full Text
AN
        2006:33785 USPATFULL
        Carrier particles for use in dry powder inhalers Staniforth, John Nicholas, Bath, UNITED KINGDOM
TI
TN
        Vectura Limited, Chippenham, UNITED KINGDOM (non-U.S. corporation)
PA
        US 2006029552
                              A1 20060209
PΤ
CLM
        What is claimed is:
        61. A method as claimed in claim 60, wherein the milling step is
        performed in a ball mill.
```

78. A method as claimed in claim 50, wherein the additive material comprises a **phospholipid** or a derivative thereof.

L14 ANSWER 2 OF 9 USPATFULL on STN

Full Text

AN 2005:195837 USPATFULL

TI Wet-micro grinding

IN Fu, Shu-Wen, Hsin Chu City, CHINA
Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA

Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA

PI US 2005169978 A1 20050804

.CLM What is claimed is:

- 1. A method for preparing a drug-lipid complex, comprising dispersing a drug and one or more **phospholipids** in an aqueous solution to obtain a mixture, in which the molar ratio between the drug and the lipids ranges from 1:9 to 9:1; and grinding the mixture with a **mechanic means** to obtain a drug-lipid complex that does not have a captured volume.
- 2. The method of claim 1, wherein the **phospholipids** are dimyristoylphosphatidylcholine and dimyristoylphosphatidylglycerol.
- 16. The method of claim 1, wherein the mechanic means is a dispersion mill.
- 17. The method of claim 16, wherein the dispersion mill is a ball mill.
- 18. The method of claim 17, wherein the **phospholipids** are dimyristoylphosphatidylcholine and dimyristoylphosphatidylglycerol.
- 32. A method for preparing a drug-containing liposome, comprising dispersing a drug and one or more **phospholipids** in an aqueous solution to obtain a mixture, in which the molar ratio between the drug and the lipids ranges from 1:99 to 1:9; and grinding the mixture with a **mechanic means** to obtain a drug-containing liposome.
- 33. The method of claim 32, wherein the **phospholipids** are egg phosphatidylcholine and egg phophatidylglycerol.
- 44. The method of claim 32, wherein the **mechanic means** is a dispersion mill.
- 45. The method of claim 44, wherein the dispersion mill is a ball mill.
- 46. The method of claim 45, wherein the **phospholipids** are egg phosphatidylcholine and egg phophatidylglycerol.

L14 ANSWER 3 OF 9 USPATFULL on STN

Full Text

AN 2004:15020 USPATFULL

TI Method for producing powdery particle-reduced formulations with the aid of compressed gases

IN Heidlas, Jurgen, Trostberg, GERMANY, FEDERAL REPUBLIC OF Ober, Martin, Altenmarkt, GERMANY, FEDERAL REPUBLIC OF Wiesmuller, Johann, Garching, GERMANY, FEDERAL REPUBLIC OF

PA Degussa AG, Trostberg, GERMANY, FEDERAL REPUBLIC OF (non-U.S. corporation)

PI US 6680284 B1 20040120

WO 2001003671 20010118

CLM What is claimed is:

. The process as claimed in claim 1, wherein the grinding step is conducted in a stirred autoclave having an integrated **ball mill**.

21. The process of claim 20, wherein said carrier material is selected from the group consisting of a **phospholipid**, a partial glyceride, a carbohydrate derivative, a polymers, a polyethylene glycol, a silicone derivative, and a gelatin.

Full Text

2003:243774 USPATFULL AN

ΤI Carrier particles for use in dry powder inhalers

IN

Staniforth, John Nicholas, Bath, UNITED KINGDOM
Vectura Limited, London, UNITED KINGDOM (non-U.S. corporation)
US 2003170183 Al 20030911 PA

PΤ US 7011818 B2 20060314

CLM What is claimed is:

> 12. A powder according to claim 11, wherein the additive material comprises a phospholipid or a derivative thereof.

42. A method according to claim 41 wherein the milling step is performed in a ball mill.

L14 ANSWER 5 OF 9 USPATFULL on STN

Full Text

AN 2002:90568 USPATFULL

TT Milled particles

Verhoff, Frank, Cincinnati, OH, UNITED STATES Pace, Gary W., Winchester, MA, UNITED STATES IN Snow, Robert A., West Chester, PA, UNITED STATES Millar, Fay, Ladson, SC, UNITED STATES

A1 20020425 B2 20031021 US 2002047058 PΙ US 6634576

CLM What is claimed is:

1. A process for preparing a synergetic commixture comprising small particles of a solid substrate and small particulates of a. . . first material of a desired size, said process comprising the steps of: a) providing to the milling chamber of a media mill a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said media mill to grind said solid substrate and degrade at least a portion of said milling bodies of first material to produce.

11. The process of claim 2 or 3, wherein the surface active substance is selected from the group consisting of phospholipids, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.

- 12. The process of claim 2 or 3, wherein the surface active substance is a phospholipid.
- 13. The process of claim 12, wherein the phospholipid is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphatidylcholine,. 27. The process of claim 1, wherein the media mill is maintained at a temperature below the melting point of the solid.
- 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the media mill, a separator at the exit port in the media mill, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.

L14 ANSWER 6 OF 9 USPATFULL on STN

Full Text

2002:7196 USPATFULL AN

ΤI Media milling

Verhoff, Frank H., Cincinnati, OH, UNITED STATES Snow, Robert A., West Chester, PA, UNITED STATES IN Pace, Gary W., Winchester, MA, UNITED STATES

A1 20020110 B2 20030812 PΙ US 2002003179 US 6604698

CLM What is claimed is:

carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a media mill and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said. . . 5. The process of claim 1 where the surface active substance is selected from the group consisting of a phospholipid, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and

colloidal clays.

6. The process of claim 5 where the **phospholipid** is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphatidylcholine,...

L14 ANSWER 7 OF 9 USPATFULL on STN

Full Text

AN 1999:4081 USPATFULL

TI Pharmaceutical nanosuspensions for medicament administration as systems

with increased saturation solubility and rate of solution Muller, Rainer H., Berlin, Germany, Federal Republic of

Becker, Robert, Biberach, Germany, Federal Republic of Kruss, Bernd, Hochdorf, Germany, Federal Republic of Peters, Katrin, Berlin, Germany, Federal Republic of

Peters, Katrin, Berlin, Germany, Federal Republic of
PA Medac Gesellschaft Fur Klinische Spezialpraparate, Hamburg, Germany,

Federal Republic of (non-U.S. corporation)

· PI US 5858410 19990112

WO 9614830 19960523

CLM What is claimed is:

. solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a **ball mill** or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using a piston-gap. . .

. esters, polyglycerol ethers and esters, lecithins, esters and ethers of sugars or sugar alcohols with fatty acids or fatty alcohols, **phospholipids** and sphingolipids, sterols, esters or ethers thereof and mixtures of these compounds.

. egg lecithin, soya lecithin or hydrogenated lecithin, mixtures thereof or mixtures of one or both lecithins with one or more **phospholipid** components, cholesterol, cholesterol palmitate, or stigmasterol.

. solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a **ball mill** or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using cavitation or . . .

L14 ANSWER 8 OF 9 USPAT2 on STN

Full Text

AN 2002:90568 USPAT2

TI Milled particles

IN Verhoff, Frank, Cincinnati, OH, United States
Pace, Gary W., Winchester, MA, United States
Snow, Robert A., West Chester, PA, United States
Millar, Fay, Ladson, SC, United States

PA RTP Pharma Inc., Durham, NC, United States (U.S. corporation)

PI US 6634576 B2 20031021

CLM What is claimed is:

. particulates of a first material of a desired size, said process comprising: a) providing to a milling chamber of a **media mill** a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said **media mill** to grind said solid substrate and degrade at least a portion of said milling bodies of the first material to.

. of claim 3, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.

- 5. The process of claim 3, wherein the one or more than one surface active substance is a **phospholipid**.
- 6. The process of claim 5, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean. . .

. of claim 2, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic

surfactants, and colloidal clays.

- 15. The process of claim 2, wherein the one or more than one surface active substance is a **phospholipid**.
- 16. The process of claim 15, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

 30. The process of claim 1, wherein the **media mill** is maintained at a temperature below the melting point of the solid substrate.
- . 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the **media mill**, a separator at an exit port in the **media mill**, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.

```
L14 ANSWER 9 OF 9 USPAT2 on STN
Full Text
AN
        2002:7196 USPAT2
        Media milling
TI ·
IN
        Verhoff, Frank H., Cincinnati, OH, United States
        Snow, Robert A., West Chester, PA, United States
        Pace, Gary W., Raleigh, NC, United States
        SkyePharma Canada, Inc., Montreal, CANADA (non-U.S. corporation) US 6604698 B2 20030812
PA
PΙ
CLM
        What is claimed is:
           carrier comprising the steps of: (a) providing a plurality of large
        size milling media to the milling chamber of a media mill and
        forming a depth filter therefrom on an exit screen or separator in the
        milling chamber; (b) adding to said.
        5. The process of claim 1, wherein the surface active substance is
        selected from the group consisting of phospholipids, natural surfactants, nonionic surfactants, anionic surfactants, cationic
        surfactants, and colloidal clays.
```

- 6. The process of claim 5, wherein the surface active substance is a **phospholipid** or mixture of **phospholipids**.
- 7. The process of claim 6, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, hydrogenated egg phosphatidylcholine, soy phosphatidylcholine, dimyristoylphosphatidylglycerol, and combinations thereof.

=> d his

(FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)

```
FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007
L1
             18 S (DRUG-LIPID COMPLEX?)
             18 S (DRUG-LIPID COMPLEX?)/AB, BI
1.2
     FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007
             42 S (DRUG-LIPID COMPLEX?)
L3
              3 S (DRUG-LIPID COMPLEX?)/CLM
L4
L5
          37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
           1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
L6
              2 S L3 AND L5
L7
L8
              1 S L4 AND L6
L9
             20 S PHOSPHILIPID?
             20 S PHOSPHILIPID?
L10
          50032 S PHOSPHOLIPID?
L11
           5315 S PHOSPHOLIPID?/CLM
L12
            478 S L5 AND L11
L13
              9 S L6 AND L12
L14
=> s 13 and 111
L15
            41 L3 AND L11
```

```
2 L5 AND L15
L16
=> d 1-2
L16 ANSWER 1 OF 2 USPATFULL on STN
Full Text
       2005:195837 USPATFULL
       Wet-micro grinding
TI
IN
       Fu, Shu-Wen, Hsin Chu City, CHINA
       Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
       Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
       Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
                                20050804
PΙ
       US 2005169978
                             A1
       US 2004-769118
                             Α1
                                20040129 (10)
AΙ
       Utility
DT
       APPLICATION
FS
LN.CNT 435
INCL
       INCLM: 424/450.000
       INCLS: 514/034.000; 514/283.000; 514/449.000
NCL
       NCLM:
               424/450.000
               514/034.000; 514/283.000; 514/449.000
       NCLS:
IC
       [7]
       ICM
               A61K009-127
       ICS
               A61K009-16; A61K009-50
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L16 ANSWER 2 OF 2 USPATFULL on STN
Full Text
       95:13613 USPATFULL
AN
       Solid care therapeutic compositions and methods for making same
ΤI
       Chagnon, Mark S., Pelham, NH, United States
IN
       Ferris, John R., Newburyport, MA, United States
       Hamilton, Tracy J., Salem, NH, United States
       Rudd, Edwin A., Salem, NH, United States
       Carter, Michelle J., Derry, NH, United States
Molecular Bioquest, Inc., Atkinson, NH, United States (U.S: corporation)
PA
       US 5389377
                                 19950214
PΙ
       US 1992-958646
                                 19921007 (7)
ΑI
       Continuation-in-part of Ser. No. US 1992-894260, filed on 8 Jun 1992
RLI
       which is a continuation-in-part of Ser. No. US 1990-566169, filed on 10
       Aug 1990, now abandoned which is a continuation-in-part of Ser. No. US
       1989-455071, filed on 22 Dec 1989, now abandoned
DT
       Utility
FS
       Granted
LN.CNT 678
INCL
        INCLM: 424/450.000
        INCLS: 424/490.000; 424/498.000; 424/600.000; 424/617.000; 424/630.000;
               424/635.000; 424/639.000; 424/641.000; 424/644.000; 424/646.000;
               424/650.000; 428/402.240
NCL
       NCLM:
               424/450.000
               424/490.000; 424/498.000; 424/600.000; 424/617.000; 424/630.000;
       NCLS:
               424/635.000; 424/639.000; 424/641.000; 424/644.000; 424/646.000;
               424/650.000; 428/402.240
ΪC
        [6]
        ICM
               A61K009-127
        424/450; 424/417; 424/420; 424/600; 424/641; 424/617; 428/402.2;
EXF
        428/402.24; 428/490; 428/498; 428/630; 428/635; 428/639; 428/644;
        428/646; 428/650
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
=> d kwic 2
     ANSWER 2 OF 2 USPATFULL on STN
L16
                 the hydrophobic and hydrophilic portions of the molecule
SUMM
        determines its physical properties in an aqueous environment. The uses
        of natural phospholipids as additives include, for example, food
        emulsifiers, cosmetics, industrial surfactants, and, and pharmaceutical drug-delivery systems. U.S. Pat. Nos. 4,086,257, 4,097,502, 4,097,503,
        4,145,410 and 4,159,988 disclose various modifications of the
        polar-head-group region of natural phospholipids which lead to unique
```

=> s 15 and 115

physical properties. SUMM used to treat cancer and infectious diseases. The use of liposomes and other lipid structures, such as micro-emulsions, micelles, and drug/lipid complexes, for drug delivery has been widely proposed. Such lipid structures, and particularly liposomes, have the potential for providing controlled release. SUMM a lipid having two hydrocarbon chains, including acyl chains, and a polar head group. Included in this class are the phospholipids, such a phosphatidylcholine (PC), phosphatidic acid (PA), phosphatidylinositol (PI), sphingomyelin (SM), and the glycolipids, such as cerebroside and gangliosides. DETD collect the crystal between washes. The crystals are then milled to a more controlled particle size, for example, in a ball mill, under conditions sufficient to form 50 Angstroms or lower particle size. See, commonly assigned U.S. Pat. No. 5,071,076, and copending. DETD forming the inorganic core liposomes of the invention may be selected from a variety of vesicle forming lipids, typically including phospholipids, such as phosphatidylcholine (PC), phosphatidic (PA), phosphatidylinositol (PI), sphinogomyelin (SM), and the glycolipids, such as cerebroside and gangliosides. The selection. The lipids may be either fluidic lipids, e.g. phospholipids whose acyl DETD chains are relatively unsaturated, or more rigidifying membrane lipids, such as highly saturated phospholipids. Accordingly, the vesicle forming lipids may also be selected to achieve a selected degree of fluidity or rigidity to control. In a preferred embodiment, the vesicle forming lipid include those DETD phospholipids in which the polar-head-group region is modified by the covalent attachment of polyalkylene ether polymers of various molecular weights. The attachment of the relatively hydrophilic polyalkylene ether polymer, particularly polyethylene oxide, alters the hydrophilic to hydrophobic balance within the **phospholipid** in order to give unique solubility to the **phospholipid** compound in an aqueous environment. See, e.g. U.S. Pat. No. 4,426,330. The polyalkyl ether lipid is preferably employed in the . . . Fe₃ O₄ :acid equal to 2:1 weight percent. After mechanically milling the mixture for 1 to 1.5 hours on a ball mill DETD with 4 mm glass media, the acid coated particles collapse around the media allowing for easy removal of water without. DETD Absorbing a phospholipid onto the fatty acid coated particles was accomplished by addition of a synthetic polyethylene glycol terminated phosphatidyl ethanolamine to the. DETD include PEG-PE and PG, to a final concentration of charged lipids up to 40 mole percent, doxorubicin, and remainder neutral

phospholipids or neutral phospholipids and cholesterol.
CLM What is claimed is:

5. The composition of claim 1 wherein the second amphipathic compound is selected from the group consisting of **phospholipids**, glycolipids, and mixtures thereof.

6. The composition of claim 5 wherein the **phospholipid** is selected from the group consisting of phosphatidylcholine, phosphatidic acid and phosphatidylinositol.

. group consisting of fatty acid compounds, and further coated with a second amphipathic compound selected from the group consisting of **phospholipids**, glycolipids, and mixtures thereof, characterized in that said solid core therapeutic composition has a size range of about 5-5000 nm.

=> d his

L3

(FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)

FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007 L1 18 S (DRUG-LIPID COMPLEX?)

L2 18 S (DRUG-LIPID COMPLEX?)/AB,BI

FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007 42 S (DRUG-LIPID COMPLEX?)

```
3 S (DRUG-LIPID COMPLEX?)/CLM
L4
          37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
L5
L6
           1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
              2 S L3 AND L5
L7
               1 S L4 AND L6
L8
             20 S PHOSPHILIPID?
L9
L10
             20 S PHOSPHILIPID?
L11
          50032 S PHOSPHOLIPID?
           5315 S PHOSPHOLIPID?/CLM
L12
            478 S L5 AND L11
L13
              9 S L6 AND L12
L14
L15
              41 S L3 AND L11
               2 S L5 AND L15
=> s (drug or active compound or active ingredient or active agent or compound)
        975060 (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
L17
               OR COMPOUND)
=> s (drug or active compound or active ingredient or active agent or compound)/clm
      436672 (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
                OR COMPOUND)/CLM
=> s 111 and 117
         45055 L11 AND L17
T.19
=> s 16 and 118
         · 228 L6 AND L18
L20
=> s 15 and 119
           430 L5 AND L19
=> s 16 and 120
L22
           228 L6 AND L20
=> s 112 and 118
          2412 L12 AND L18
L23
=> s 16 and 123
             7 L6 AND L23
T.24
=> d 1-7
L24 ANSWER 1 OF 7 USPATFULL on STN
Full Text
AN
       2005:195837 USPATFULL
       Wet-micro grinding
TI
       Fu, Shu-Wen, Hsin Chu City, CHINA
IN
       Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
       Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
       US 2005169978
                            A1 20050804
PΤ
ΑI
       US 2004-769118
                            A1
                                20040129 (10)
DT
       Utility
FS
       APPLICATION
LN.CNT 435
       INCLM: 424/450.000
INCL
       INCLS: 514/034.000; 514/283.000; 514/449.000
NCT.
       NCLM:
               424/450.000
       NCLS:
               514/034.000; 514/283.000; 514/449.000
IC
        [7]
       ICM
               A61K009-127
               A61K009-16; A61K009-50
       ICS
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L24 ANSWER 2 OF 7 USPATFULL on STN
Full Text
ΑN
       2004:15020 USPATFULL
ΤI
       Method for producing powdery particle-reduced formulations with the aid
       of compressed gases
       Heidlas, Jurgen, Trostberg, GERMANY, FEDERAL REPUBLIC OF
       Ober, Martin, Altenmarkt, GERMANY, FEDERAL REPUBLIC OF
       Wiesmuller, Johann, Garching, GERMANY, FEDERAL REPUBLIC OF
```

```
Degussa AG, Trostberg, GERMANY, FEDERAL REPUBLIC OF (non-U.S.
PA
        corporation)
ΡI
        US 6680284
                              B1
                                  20040120
       WO 2001003671
                        20010118
ΑI
        US 2002-30035
                                  20020103 (10)
        WO 2000-EP6709
                                  20000713
PRAI
       DE 1999-19932648
                              19990713
        DE 1999-19960167
DT
        Utility
FS
        GRANTED
LN.CNT
       451
INCL
        INCLM: 504/367.000
        INCLS: 424/489.000; 424/499.000; 424/500.000; 424/501.000; 424/502.000;
                514/959.000; 516/001.000; 516/114.000; 516/922.000; 516/928.000
               504/367.000
NCL
        NCLM:
               424/489.000; 424/499.000; 424/500.000; 424/501.000; 424/502.000;
        NCLS:
               514/959.000; 516/001.000; 516/114.000; 516/922.000; 516/928.000
IC
        [7]
        ICM
               A01N025-12
        ICS
               A61K009-16; B01J003-00
        424/489; 424/499; 424/500; 424/501; 424/502; 514/951; 504/367; 516/1;
EXF
        516/114; 516/922; 516/928
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L24 ANSWER 3 OF 7 USPATFULL on STN
Full Text
        2002:90568 USPATFULL
AN
        Milled particles
ΤI
        Verhoff, Frank, Cincinnati, OH, UNITED STATES
Pace, Gary W., Winchester, MA, UNITED STATES
Snow, Robert A., West Chester, PA, UNITED STATES
IN
        Millar, Fay, Ladson, SC, UNITED STATES .
                              A1 20020425
ΡI
        US 2002047058
        US 6634576
                              B2
                                  20031021
                                  20010829 (9)
        US 2001-940864
                              A1
AΤ
PRAI
        US 2000-229042P
                              20000831 (60)
DT
        Utility
        APPLICATION
FS
LN.CNT 4197
        INCLM: 241/026.000
INCL
        INCLS: 424/489.000
NCL
               241/021.000; 241/026.000
        NCLM:
               241/184.000; 424/489.000
        NCLS:
IC
        [7]
        ICM
               B02C017-00
        ICS
               A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L24 ANSWER 4 OF 7 USPATFULL on STN
Full Text
ΑN
        2002:7196 USPATFULL
TT
        Media milling
IN
        Verhoff, Frank H., Cincinnati, OH, UNITED STATES
        Snow, Robert A., West Chester, PA, UNITED STATES Pace, Gary W., Winchester, MA, UNITED STATES
ΡI
        US 2002003179
                              A1
                                  20020110
        US 6604698'
                                  20030812
                              B2
        US 2001-852054
                                  20010510 (9)
                              Α1
PRAT
        US 2000-203366P
                              20000510 (60)
DT
        Utility
        APPLICATION
FS
LN.CNT
        2454
INCL
        INCLM: 241/021.000
        INCLS: 241/172.000
NCL
        NCLM:
                241/021.000
                241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
        NCLS:
        [7]
IC
        ICM
               B02C017-16
     ANSWER 5 OF 7 USPATFULL on STN
L24
Full
     Text
        1999:4081
AN
                   USPATFULL
```

```
ΤI
       Pharmaceutical nanosuspensions for medicament administration as systems
       with increased saturation solubility and rate of solution
       Muller, Rainer H., Berlin, Germany, Federal Republic of Becker, Robert, Biberach, Germany, Federal Republic of
IN
       Kruss, Bernd, Hochdorf, Germany, Federal Republic of
Peters, Katrin, Berlin, Germany, Federal Republic of
       Medac Gesellschaft Fur Klinische Spezialpraparate, Hamburg, Germany,
PΑ
       Federal Republic of (non-U.S. corporation)
                                  19990112
       US 5858410
PI
       WO 9614830
                     19960523
       US 1997-836305
                                  19970619 (8)
ΑI
       WO 1995-EP4401
                                  19951109
                                             PCT 371 date
                                  19970619
                                  19970619 PCT 102(e) date
PRAI
       DE 1994-4440337
                              19941111
DT
       Utility
FS
       Granted
LN.CNT 1289
INCL
        INCLM: 424/489.000
        INCLS: 424/491.000; 424/493.000; 424/494.000; 424/495.000; 424/499.000
NCL
        NCLM:
               424/489.000
       NCLS: 424/491.000; 424/493.000; 424/494.000; 424/495.000; 424/499.000
IC
        [6]
        ICM
               A61K009-14
EXF
        424/489; 424/491; 424/493; 424/494; 424/495; 424/499
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L24 ANSWER 6 OF 7 USPAT2 on STN
Full Text
        2002:90568 USPAT2
AN
ΤI
        Milled particles
        Verhoff, Frank, Cincinnati, OH, United States
IN
        Pace, Gary W., Winchester, MA, United States
        Snow, Robert A., West Chester, PA, United States
       Millar, Fay, Ladson, SC, United States
RTP Pharma Inc., Durham, NC, United States (U.S. corporation)
PA
                            B2 20031021
        US 6634576
PΤ
ΑI
        US 2001-940864
                                   20010829 (9)
        US 2000-229042P
                              20000831 (60)
PRAI
        Utility
DТ
FS
        GRANTED
LN.CNT 4045
        INCLM: 241/021.000
INCL
        INCLS: 241/184.000
               241/021.000; 241/026.000
241/184.000; 424/489.000
NCL
        NCLM:
        NCLS:
IC
        [7]
        ICM
               B02C012-14
        241/21; 241/184; 241/171; 241/172; 241/23; 241/24.12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L24 ANSWER 7 OF 7 USPAT2 on STN
Full Text
        2002:7196 USPAT2
AN
ΤI
        Media milling
        Verhoff, Frank H., Cincinnati, OH, United States
IN
        Snow, Robert A., West Chester, PA, United States
        Pace, Gary W., Raleigh, NC, United States
        SkyePharma Canada, Inc., Montreal, CANADA (non-U.S. corporation)
US 6604698 B2 20030812
PΑ
PΙ
        US 2001-852054
                                   20010510 (9)
AΙ
PRAI
        US 2000-203366P
                              20000510 (60)
        Utility
DT
        GRANTED
LN.CNT 2454
INCL
        INCLM: 241/021.000
        INCLS: 214/184.000
        NCLM:
NCL
               241/021.000
       NCLS:
                241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
IC
        [7]
        ICM
                B02C017-16
        ICS
               B02C019-12
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EXF 214/184; 214/172; 214/171; 214/30; 214/21; 214/18; 214/57; 214/62; 424/450

=> d kwic 4-7

L24 ANSWER 4 OF 7 USPATFULL on STN CLM What is claimed is:

carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a **media mill** and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said.

5. The process of claim 1 where the surface active substance is selected from the group consisting of a **phospholipid**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.

6. The process of claim 5 where the **phospholipid** is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphatidylcholine,. . . 9. The process of claim 7 where the pharmaceutical agent is a poorly water-soluble, an essentially water-insoluble **drug**, or an insoluble **drug**.

L24 ANSWER 5 OF 7 USPATFULL on STN CLM What is claimed is:

- 1. Drug carrier comprising particles of at least one therapeutically active compound which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) of 10 nm to. . . than 0.1% (number distribution determined with a Coulter counter), and, when introduced into water, aqueous media and/or organic solvents, the active compound has an increased saturation solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a ball mil or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using a piston-gap. . . 7. Carrier according to claim 1, wherein the proportion of the internal or drug phase, based on the total weight of said carrier, is 0.1 to 30 wt. %.
- 8. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in water or aqueous solutions.
- 9. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in organic solvents.
- 10. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in water or aqueous solutions and in organic solvents.
- 11. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which have a moderate solubility in water or aqueous solutions and/or in organic solvents.
- . esters, polyglycerol ethers and esters, lecithins, esters and ethers of sugars or sugar alcohols with fatty acids or fatty alcohols, **phospholipids** and sphingolipids, sterols, esters or ethers thereof and mixtures of these compounds.
- . egg lecithin, soya lecithin or hydrogenated lecithin, mixtures thereof or mixtures of one or both lecithins with one or more **phospholipid** components, cholesterol, cholesterol palmitate, or stigmasterol.
- 22. Carrier according to claim 19, further comprising a **compound** selected from the group consisting of sugars or sugar alcohols, glucose, mannose, trehalose, mannitol and sorbitol.

- 28. Carrier according to claim 27, wherein, in the case of several active compounds, one active compound or several active compounds are dissolved or dispersed in another or several others, adsorbed onto the surface thereof or dispersed.
- 35. Process for the preparation of the **drug** carrier according to claim 1, wherein it is produced by using cavitation, wherein the **drug** or the **drug** mixture is ground to a powder, dispersed in a dispersing agent and forced under pressure through a gap, where cavitation. . .
- 36. Process for the preparation of the drug carrier according to claim 1, wherein it is produced by using shearing and impact forces, wherein the drug or the drug mixture is ground to a powder, dispersed in a dispersing agent and then ground in the wet state, in particular.

 37. Drug carrier comprising particles of at least one therapeutically active compound which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has
- moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) of 40 nm to. . .
- 38. A method of making a **drug** carrier comprising the steps of: subjecting at least one solid therapeutically **active compound** dispersed in a solvent to high pressure homogenization in a piston-gap homogenizer to form particles having an average diameter, determined.
- . population being less than 0.1% (number distribution determined with a Coulter counter), without prior conversion into a melt, wherein said active compound is solid at room temperature and is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic. .
- 39. Drug carrier comprising particles of at least one therapeutically active compound which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) . than 0.1% (number distribution determined with a of 10 nm to. Coulter counter), and, when introduced into water, aqueous media and/or organic solvents, the active compound has an increased saturation solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a ball mill or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using cavitation or shearing and impact forces with introduction of a high amount of energy, and wherein said active compound comprises at least one compound selected from the group consisting of: analgesics, anaesthetics, antirheumatics, antiallergics, antibiotics, antiepileptics, antimycotics, calcium metabolism regulators, chemotherapeutics, corticoids, cytokines, cytostatics,.
- 40. A drug carrier according to claim 39, wherein said active compound comprises an analgesic selected from the group consisting of morphine, codeine, piritramide, fentanyl, levomethadone, tramadol, diclofenac, ibuprofen, indomethacin, naproxen, and.
- 41. A drug carrier according to claim 39, wherein said active compound comprises an antiallergic selected from the group consisting of pheniramine, dimethindene, terfenadine, astemizole, loratidine, dosylamine and meclozine.
- 42. A drug carrier according to claim 39, wherein said active compound comprises an antibiotic selected from the group consisting of rifampicin, ethambutol and thiacetazone.
- 43. A **drug** carrier according to claim 39, wherein said **active compound** comprises an antiepileptic selected from the group consisting of clonazepam, mesuximide, phenyltoin, and valproic acid.
- 44. A drug carrier according to claim 39, wherein said active compound comprises an antimycotic selected from the group consisting of natamycin, amphotericin B, miconazole, clotrimazole, econazole, fenticonazole, bifonazole, ketoconazole and tolnaftate.
- 45. A drug carrier according to claim 39, wherein said active compound comprises a corticoide selected from the group consisting of aldosterone, fludrocortisone, betamethasone, dexamethasone, triamcinolone, fluocortolone, hydroxycortisone, prednisolone,

- prednylidene, cloprednol and. . . 46. A drug carrier according to claim 39, wherein said active compound comprises a dermatic selected from the group consisting of tetracycline, erythromycin, framyctin, tyrothricin, fusidic acid, vidarabine, amcinonide, fluprednidene, alclometasone, clobetasol, . 47. A drug carrier according to claim 39, wherein said active compound comprises a hypnotic selected from the group consisting of cyclobarbital, pentobarbital, methaqualone and benzodiazepines.
- 48. A drug carrier according to claim 39, wherein said active compound comprises an immunotherapeutic selected from the group consisting of azathioprine and ciclosporin.
- 49. A drug carrier according to claim 39, wherein said active compound comprises a local anaesthetic selected from the group consisting of butanilicaine, mepivacaine, bupivacaine, etidocaine, lidocaine, articaine, oxybuprocaine, tetracaine, and benzocaine.
- 50. A **drug** carrier according to claim 39, wherein said **active compound** comprises a migraine agent selected from the group consisting of lisuride, methysergide, dihydroergotamine, and ergotamine.
- 51. A drug carrier according to claim 39, wherein said active compound comprises an anaesthetic selected from the group consisting of methohexital, propfol, etomidate, ketamine, thiopental, droperidol and fentanyl.
- 52. A **drug** carrier according to claim 39, wherein said **active compound** comprises dihydrotachysterol.
- 53. A **drug** carrier according to claim 39, wherein said **active compound** comprises an ophthalmic selected from the group consisting of cyclodrin, cyclophtolate, homatropine, trompcamide, pholedrine, edoxudine, aciclovir, acetazolamide, diclofenamide, carteolol, timolol,.
- 54. A drug carrier according to claim 39, wherein said active compound comprises a psychotropic selected from the group consisting of benzodiazepines.
- 55. A drug carrier according to claim 39, wherein said active compound comprises a sex hormone selected from the group consisting of anabolics, androgens, antiandrogens, gestagens, oestrogens and antioestrogens.
- 56. A drug carrier according to claim 39, wherein said active compound comprises a cytostatic or metastasis inhibitor selected from the group consisting of alkylating agents, antimetabolites, alkaloids, antibiotics, taxol and decarbazine.
- 57. A method of making a **drug** carrier comprising the steps of: subjecting at least one solid therapeutically **active compound** dispersed in a solvent to high pressure homogenization in a piston-gap homogenizer to form particles having an average diameter, determined. population being less than 0.1% (number distribution determined with a Coulter counter), without prior conversion into a melt, wherein said **active compound** is solid at room temperature and is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said **active compound** comprises at least one **compound** selected from the group consisting of: analgesics, anaesthetics, antirheumatics, antiallergics, antibiotics, antiepileptics, antimycotics, calcium metabolism regulators, chemotherapeutics, corticoids, cytokines, cytostatics, . .
- L24 ANSWER 6 OF 7 USPAT2 on STN CLM What is claimed is:
 - . particulates of a first material of a desired size, said process comprising: a) providing to a milling chamber of a media mill a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said media mill to grind said solid substrate and degrade at least a portion of said milling bodies of the first material to.

- . of claim 3, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
- 5. The process of claim 3, wherein the one or more than one surface active substance is a **phospholipid**.
- 6. The process of claim 5, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

9. The process of claim 8, wherein the pharmaceutical agent is a poorly water soluble or water insoluble **drug**.

- 14. The process of claim 2, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
- 15. The process of claim 2, wherein the one or more than one surface active substance is a **phospholipid**.
- 16. The process of claim 15, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

 30. The process of claim 1, wherein the **media mill** is maintained at a temperature below the melting point of the solid substrate.
- . 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the **media mill**, a separator at an exit port in the **media mill**, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.

L24 ANSWER 7 OF 7 USPAT2 on STN

CLM What is claimed is:

- carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a **media mill** and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said. . . 5. The process of claim 1, wherein the surface active substance is
- 5. The process of claim 1, wherein the surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
- 6. The process of claim 5, wherein the surface active substance is a **phospholipid** or mixture of **phospholipids**.
- 7. The process of claim 6, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, hydrogenated egg phosphatidylcholine, soy phosphatidylcholine, dimyristoylphosphatidylglycerol, and combinations thereof.
- 10. The process of claim 8, wherein the pharmaceutical agent is a poorly water-soluble **drug**, an essentially water-insoluble **drug**, or an insoluble **drug**.

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PΙ

L24 ANSWER 4 OF 7 USPATFULL on STN

US 2002003179 A1 20020110 US 6604698 B2 20030812

CLM What is claimed is:

carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a **media mill** and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said.

5. The process of claim 1 where the surface active substance is selected

from the group consisting of a **phospholipid**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.

- 6. The process of claim 5 where the **phospholipid** is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphatidylcholine, . . . 9. The process of claim 7 where the pharmaceutical agent is a poorly water-soluble, an essentially water-insoluble **drug**, or an insoluble **drug**.
- L24 ANSWER 5 OF 7 USPATFULL on STN PI US 5858410 19990112 WO 9614830 19960523
- CLM What is claimed is:
 - 1. Drug carrier comprising particles of at least one therapeutically active compound which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) of 10 nm to. than 0.1% (number distribution determined with a Coulter counter), and, when introduced into water, aqueous media and/or organic solvents, the active compound has an increased saturation solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a ball mill or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using a piston-gap. 7. Carrier according to claim 1, wherein the proportion of the internal or drug phase, based on the total weight of said carrier, is 0.1 to 30 wt. %.
 - 8. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in water or aqueous solutions.
 - 9. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in organic solvents.
 - 10. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which are slightly soluble or insoluble in water or aqueous solutions and in organic solvents.
 - 11. Carrier according to claim 1, wherein the **drug** carrier comprises an **active compound** or active compounds which have a moderate solubility in water or aqueous solutions and/or in organic solvents.
 - . esters, polyglycerol ethers and esters, lecithins, esters and ethers of sugars or sugar alcohols with fatty acids or fatty alcohols, **phospholipids** and sphingolipids, sterols, esters or ethers thereof and mixtures of these compounds.
 - . egg lecithin, soya lecithin or hydrogenated lecithin, mixtures thereof or mixtures of one or both lecithins with one or more **phospholipid** components, cholesterol, cholesterol palmitate, or stigmasterol.
 - 22. Carrier according to claim 19, further comprising a **compound** selected from the group consisting of sugars or sugar alcohols, glucose, mannose, trehalose, mannitol and sorbitol.
 - 28. Carrier according to claim 27, wherein, in the case of several active compounds, one active compound or several active compounds are dissolved or dispersed in another or several others, adsorbed onto the surface thereof or dispersed.
 - 35. Process for the preparation of the **drug** carrier according to claim 1, wherein it is produced by using cavitation, wherein the **drug** or the **drug** mixture is ground to a powder, dispersed in a dispersing agent and forced under pressure through a gap, where cavitation.
 - 36. Process for the preparation of the **drug** carrier according to claim 1, wherein it is produced by using shearing and impact forces, wherein

the **drug** or the **drug** mixture is ground to a powder, dispersed in a dispersing agent and then ground in the wet state, in particular. . 37. **Drug** carrier comprising particles of at least one therapeutically **active compound** which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said **active ingredient** is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) of 40 nm to. . .

38. A method of making a **drug** carrier comprising the steps of: subjecting at least one solid therapeutically **active compound** dispersed in a solvent to high pressure homogenization in a piston-gap homogenizer to form particles having an average diameter, determined.

. population being less than 0.1% (number distribution determined with a Coulter counter), without prior conversion into a melt, wherein said active compound is solid at room temperature and is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic.

- 39. Drug carrier comprising particles of at least one therapeutically active compound which is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said active ingredient is solid at room temperature and has an average diameter, determined by photon correlation spectroscopy (PCS) of 10 nm to. than 0.1% (number distribution determined with a Coulter counter), and, when introduced into water, aqueous media and/or organic solvents, the active compound has an increased saturation solubility and an increased rate of dissolution compared with powders of the active compound prepared using an ultrasonic probe, a ball mill or a pearl mill, the solid particles having been comminuted, without prior conversion into a melt, by using cavitation or shearing and impact forces with introduction of a high amount of energy, and wherein said active compound comprises at least one compound selected from the group consisting of: analgesics, anaesthetics, antirheumatics, antiallergics, antibiotics, antiepileptics, antimycotics, calcium metabolism regulators, chemotherapeutics, corticoids, cytokines, cytostatics,.
- 40. A drug carrier according to claim 39, wherein said active compound comprises an analgesic selected from the group consisting of morphine, codeine, piritramide, fentanyl, levomethadone, tramadol, diclofenac, ibuprofen, indomethacin, naproxen, and. . . 41. A drug carrier according to claim 39, wherein said active
- compound comprises an antiallergic selected from the group consisting of pheniramine, dimethindene, terfenadine, astemizole, loratidine, dosylamine and meclozine.
- 42. A **drug** carrier according to claim 39, wherein said **active compound** comprises an antibiotic selected from the group consisting of rifampicin, ethambutol and thiacetazone.
- 43. A **drug** carrier according to claim 39, wherein said **active compound** comprises an antiepileptic selected from the group consisting of clonazepam, mesuximide, phenyltoin, and valproic acid.
- 44. A drug carrier according to claim 39, wherein said active compound comprises an antimycotic selected from the group consisting of natamycin, amphotericin B, miconazole, clotrimazole, econazole, fenticonazole, bifonazole, ketoconazole and tolnaftate.
- 45. A drug carrier according to claim 39, wherein said active compound comprises a corticoide selected from the group consisting of aldosterone, fludrocortisone, betamethasone, dexamethasone, triamcinolone, fluocortolone, hydroxycortisone, prednisolone, prednylidene, cloprednol and. . .
- 46. A drug carrier according to claim 39, wherein said active compound comprises a dermatic selected from the group consisting of tetracycline, erythromycin, framyctin, tyrothricin, fusidic acid, vidarabine, amcinonide, fluprednidene, alclometasone, clobetasol,. 47. A drug carrier according to claim 39, wherein said active compound comprises a hypnotic selected from the group consisting of cyclobarbital, pentobarbital, methaqualone and benzodiazepines.
- 48. A drug carrier according to claim 39, wherein said active compound comprises an immunotherapeutic selected from the group

consisting of azathioprine and ciclosporin.

- 49. A drug carrier according to claim 39, wherein said active compound comprises a local anaesthetic selected from the group consisting of butanilicaine, mepivacaine, bupivacaine, etidocaine, lidocaine, articaine, oxybuprocaine, tetracaine, and benzocaine.
- 50. A drug carrier according to claim 39, wherein said active compound comprises a migraine agent selected from the group consisting of lisuride, methysergide, dihydroergotamine, and ergotamine.
- 51. A drug carrier according to claim 39, wherein said active compound comprises an anaesthetic selected from the group consisting of methohexital, propfol, etomidate, ketamine, thiopental, droperidol and fentanyl.
- 52. A drug carrier according to claim 39, wherein said active compound comprises dihydrotachysterol.
- 53. A drug carrier according to claim 39, wherein said active compound comprises an ophthalmic selected from the group consisting of cyclodrin, cyclophtolate, homatropine, trompcamide, pholedrine, edoxudine, aciclovir, acetazolamide, diclofenamide, carteolol, timolol,.
- 54. A drug carrier according to claim 39, wherein said active compound comprises a psychotropic selected from the group consisting of benzodiazepines.
- 55. A drug carrier according to claim 39, wherein said active compound comprises a sex hormone selected from the group consisting of anabolics, androgens, antiandrogens, gestagens, oestrogens and antioestrogens.
- 56. A drug carrier according to claim 39, wherein said active compound comprises a cytostatic or metastasis inhibitor selected from the group consisting of alkylating agents, antimetabolites, alkaloids, antibiotics, taxol and decarbazine.
- 57. A method of making a **drug** carrier comprising the steps of: subjecting at least one solid therapeutically **active compound** dispersed in a solvent to high pressure homogenization in a piston-gap homogenizer to form particles having an average diameter, determined. population being less than 0.1% (number distribution determined with a Coulter counter), without prior conversion into a melt, wherein said **active compound** is solid at room temperature and is insoluble, only sparingly soluble or moderately soluble in water, aqueous media and/or organic solvents, wherein said **active compound** comprises at least one **compound** selected from the group consisting of: analgesics, anaesthetics, antirheumatics, antiallergics, antibiotics, antiepileptics, antimycotics, calcium metabolism regulators, chemotherapeutics, corticoids, cytokines, cytostatics, . .
- L24 ANSWER 6 OF 7 USPAT2 on STN PI US 6634576 B2 20031021
- CLM What is claimed is:
 - . particulates of a first material of a desired size, said process comprising: a) providing to a milling chamber of a media mill a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said media mill to grind said solid substrate and degrade at least a portion of said milling bodies of the first material to. . .
 - . of claim 3, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
 - 5. The process of claim 3, wherein the one or more than one surface active substance is a **phospholipid**.
 - 6. The process of claim 5, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy

phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

9. The process of claim 8, wherein the pharmaceutical agent is a poorly water soluble or water insoluble drug.

- 14. The process of claim 2, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
- 15. The process of claim 2, wherein the one or more than one surface active substance is a **phospholipid**.
- 16. The process of claim 15, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

 30. The process of claim 1, wherein the **media mill** is maintained at a temperature below the melting point of the solid substrate.
- . 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the **media mill**, a separator at an exit port in the **media mill**, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.
- L24 ANSWER 7 OF 7 USPAT2 on STN PI US 6604698 B2 20030812
- CLM What is claimed is:

what is claimed is:
. carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a media mill and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said.

5. The process of claim 1, wherein the surface active substance is selected from the group consisting of phospholipids, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.

- 6. The process of claim 5, wherein the surface active substance is a **phospholipid** or mixture of **phospholipids**.
- 7. The process of claim 6, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, hydrogenated egg phosphatidylcholine, soy phosphatidylcholine, dimyristoylphosphatidylglycerol, and combinations thereof.
- 10. The process of claim 8, wherein the pharmaceutical agent is a poorly water-soluble **drug**, an essentially water-insoluble **drug**, or an insoluble **drug**.

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=> s pharmacetical agent
L25 7 PHARMACETICAL AGENT
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=> s pharmaceutical agent L26 12656 PHARMACEUTICAL AGENT

=> s pharmaceutical agent/clm L27 1762 PHARMACEUTICAL AGENT/CLM

=> d his

(FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)

FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007
L1 18 S (DRUG-LIPID COMPLEX?)
L2 18 S (DRUG-LIPID COMPLEX?)/AB,BI

FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007
42 S (DRUG-LIPID COMPLEX?)

L3 42 S (DRUG-LIPID COMPLEX?)
L4 3 S (DRUG-LIPID COMPLEX?)/CLM

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37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
1.5
L6
           1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
L7
              2 S L3 AND L5
L8
              1 S L4 AND L6
              20 S PHOSPHILIPID?
L9
              20 S PHOSPHILIPID?
L10
L11
          50032 S PHOSPHOLIPID?
L12
           5315 S PHOSPHOLIPID?/CLM
L13
             478 S L5 AND L11
              9 S L6 AND L12
L14
              41 S L3 AND L11
L15
L16
               2 S L5 AND L15
         975060 S (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
L17
         436672 S (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
L18
L19.
          45055 S L11 AND L17
             228 S L6 AND L18
L20
             430 S L5 AND L19
L21
             228 S L6 AND L20
L22
L23
           2412 S L12 AND L18
               7 S L6 AND L23
L24
               7 S PHARMACETICAL AGENT
L25
          12656 S PHARMACEUTICAL AGENT
L26
L27
           1762 S PHARMACEUTICAL AGENT/CLM
=> s 111 and 126
L28
          2845 L11 AND L26
=> s 112 amd 127
MISSING OPERATOR L12 AMD
The search profile that was entered contains terms or
nested terms that are not separated by a logical operator.
=> s 112 and 127
L29
             64 L12 AND L27
=> s 15 and 128
             51 L5 AND L28
L30
=> s 16 and 129
              4 L6 AND L29
L31
=> d 1-4
L31 ANSWER 1 OF 4 USPATFULL on STN
Full Text
       2002:90568 USPATFULL
AN
TI
       Milled particles
       Verhoff, Frank, Cincinnati, OH, UNITED STATES Pace, Gary W., Winchester, MA, UNITED STATES
IN
       Snow, Robert A., West Chester, PA, UNITED STATES
       Millar, Fay, Ladson, SC, UNITED STATES
                            A1 20020425
PΙ
       US 2002047058
                            B2 20031021
A1 20010829 (9)
       US 6634576
       US 2001-940864
ΑI
PRAI
       US 2000-229042P
                             20000831 (60)
DT
       Utility
       APPLICATION
FS
LN.CNT 4197
       INCLM: 241/026.000
INCL
       INCLS: 424/489.000
NCL
               241/021.000; 241/026.000
       NCLM:
       NCLS:
               241/184.000; 424/489.000
IC
        [7]
       ICM
               B02C017-00
       ICS
               A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 2 OF 4 USPATFULL on STN
L31
Full Text
       2002:7196 USPATFULL
AN
TI
       Media milling
       Verhoff, Frank H., Cincinnati, OH, UNITED STATES
IN
```

```
Snow, Robert A., West Chester, PA, UNITED STATES
       Pace, Gary W., Winchester, MA, UNITED STATES
PΙ
       US 2002003179
                              A1 20020110
                              B2 20030812
A1 20010510 (9)
       US 6604698
       US 2001-852054
ΑI
       US 2000-203366P
                              20000510 (60)
PRAI
       Utility
DT
       APPLICATION
LN.CNT 2454
        INCLM: 241/021.000
INCL
        INCLS: 241/172.000
NCL
               241/021.000
       NCLM:
       NCLS: 241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
IC
        [7]
               B02C017-16
        ICM
L31 ANSWER 3 OF 4 USPAT2 on STN
Full Text
ΑN
        2002:90568 USPAT2
ΤI
        Milled particles
       Verhoff, Frank, Cincinnati, OH, United States
Pace, Gary W., Winchester, MA, United States
IN.
        Snow, Robert A., West Chester, PA, United States
        Millar, Fay, Ladson, SC, United States
        RTP Pharma Inc., Durham, NC, United States (U.S. corporation)
US 6634576 B2 20031021
PΑ
PΙ
       US 2001-940864
                                   20010829 (9)
ΑI
       US 2000-229042P
                              20000831 (60)
PRAI
DT
        Utility
        GRANTED
FS
LN.CNT 4045
        INCLM: 241/021.000
INCL
        INCLS: 241/184.000
        NCLM: 241/021.000; 241/026.000
NCL
                241/184.000; 424/489.000
        NCLS:
IC
        [7]
                B02C012-14
        ICM
        241/21; 241/184; 241/171; 241/172; 241/23; 241/24.12
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 4 OF 4 USPAT2 on STN
Full
     Text
        2002:7196 USPAT2
AN
        Media milling
TI
        Verhoff, Frank H., Cincinnati, OH, United States
Snow, Robert A., West Chester, PA, United States
Pace, Gary W., Raleigh, NC, United States
IN
        SkyePharma Canada, Inc., Montreal, CANADA (non-U.S. corporation)
PΑ
                              B2 20030812
PΤ
        US 6604698 .
        US 2001-852054
                                   20010510 (9)
ΑI
PRAI
        US 2000-203366P
                              20000510 (60)
        Utility
DT
FS
        GRANTED
LN.CNT 2454
        INCLM: 241/021.000
INCL
        INCLS: 214/184.000
                241/021.000
NCL
        NCLM:
                241/184.000; 977/775.000; 977/797.000; 977/900.000; 241/172.000
        NCLS:
IC
        [.7]
                B02C017-16
        ICM
                B02C019-12
        ICS
        214/184; 214/172; 214/171; 214/30; 214/21; 214/18; 214/57; 214/62;
EXF
        424/450
=> d ti pi kwic 1-4
     ANSWER 1 OF 4 USPATFULL on STN
L31
        Milled particles
ТT
PΙ
        US 2002047058
                              A1
                                   20020425
        US 6634576
                              B2 20031021
CLM
        What is claimed is:
```

. first material of a desired size, said process comprising the steps of: a) providing to the milling chamber of a media mill a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said media mill to grind said solid substrate and degrade at least a portion of said milling bodies of first material to produce. . . . material, a solid cosmetic ingredient, a solid support material, a solid toner material, a solid grinding material, and a solid

- 5. The process of claim 1, wherein the solid substrate is a pharmaceutical agent.
- 6. The process of claim 5, wherein the **pharmaceutical agent** is a poorly water soluble or water insoluble drug.
- 7. The process of claim 5, wherein the **pharmaceutical agent** is selected from the group consisting of an anesthetic agent, an ace inhibiting agent, an antithrombotic agent, an anti-allergic agent, . insulin, an interferon, a lactation inhibiting agent, a lipid-lowering agent, a lymphokine, a neurologic agent, a prostacyclin, a prostaglandin, a psycho-**pharmaceutical agent**, a protease inhibitor, a magnetic resonance diagnostic imaging agent, a reproductive control hormone, a sedative agent, a sex hormone, a. . . 8. The process of claim 5, wherein the **pharmaceutical agent** is selected from the group consisting of fenofibrate, nitrocamptothesin, and cyclosporin.
- . 11. The process of claim 2 or 3, wherein the surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
- 12. The process of claim 2 or 3, wherein the surface active substance is a phospholipid.
- 13. The process of claim 12, wherein the **phospholipid** is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphatidylcholine,... 27. The process of claim 1, wherein the **media mill** is maintained at a temperature below the melting point of the solid.
- . 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the **media mill**, a separator at the exit port in the **media mill**, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.

L31 ANSWER 2 OF 4 USPATFULL on STN

pharmaceutical agent.

TI Media milling

PI US 2002003179 A1 20020110 US 6604698 B2 20030812

CLM What is claimed is:

carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a **media mill** and forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said. . .

5. The process of claim 1 where the surface active substance is selected from the group consisting of a **phospholipid**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and

- colloidal clays.

 6. The process of claim 5 where the **phospholipid** is selected from the group consisting of Lipoid E80, Lipoid EPC, Lipoid SPC, DMPG, Phospholipon 100H a hydrogenated soybean phosphalidylcholine,...
- . pigment, a solid photographic material, a solid cosmetic ingredient, a solid support material, a solid toner material, and a solid pharmaceutical agent.
- 8. The process of claim 7 where the **pharmaceutical agent** is selected from the group consisting of a therapeutic agent and a diagnostic

imaging agent.

- 9. The process of claim 7 where the **pharmaceutical agent** is a poorly water-soluble, an essentially water-insoluble drug, or an insoluble drug.
- L31 ANSWER 3 OF 4 USPAT2 on STN
- TI Milled particles

PΙ

- US 6634576 B2 20031021
- CLM What is claimed is:
 - . particulates of a first material of a desired size, said process comprising: a) providing to a milling chamber of a media mill a contents comprising a pre-mix of a solid substrate, a fluid carrier, a plurality of milling bodies of a first material, and a plurality of milling bodies of a second material; b) operating said media mill to grind said solid substrate and degrade at least a portion of said milling bodies of the first material to. . .
 - . of claim 3, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
 - 5. The process of claim 3, wherein the one or more than one surface active substance is a **phospholipid**.
 - 6. The process of claim 5, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.
 . material, a solid cosmetic ingredient, a solid support material, a solid toner material, a solid grinding material, and a solid **pharmaceutical agent**.
 - 8. The process of claim 1, wherein the solid substrate is a pharmaceutical agent.
 - 9. The process of claim 8, wherein the **pharmaceutical agent** is a poorly water soluble or water insoluble drug.
 - 10. The process of claim 8, wherein the **pharmaceutical agent** is selected from the group consisting of an anesthetic agent, an ace inhibiting agent, an antithrombotic agent, an anti-allergic agent, insulin, an interferon, a lactation inhibiting agent, a lipid-lowering agent, a lymphokine, a neurologic agent, a prostacyclin, a prostaglandin, a psycho-**pharmaceutical agent**, a protease inhibitor, a magnetic resonance diagnostic imaging agent, a reproductive control hormone, a sedative agent, a sex hormone, a.

 11. The process of claim 8, wherein the **pharmaceutical agent** is selected from the group consisting of fenofibrate, nitrocamptothecin, and cyclosporin.
 - . of claim 2, wherein the one or more than one surface active substance is selected from the group consisting of **phospholipids**, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
 - 15. The process of claim 2, wherein the one or more than one surface active substance is a **phospholipid**.

- 16. The process of claim 15, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, soy phosphatidylcholine, dimyristoyl phosphatidylglycerol, hydrogenated egg phosphatidylcholine, hydrogenated soybean.

 30. The process of claim 1, wherein the **media mill** is maintained at a temperature below the melting point of the solid substrate.
- . 1, wherein the separation employs a separating device selected from the group consisting of a filter, a separator in the **media mill**, a separator at an exit port in the **media mill**, a depth filter, a mesh, a screen, a sieve, a milk filter, and a bed of particles.
- L31 ANSWER 4 OF 4 USPAT2 on STN
- TI Media milling PI US 6604698
 - US 6604698 B2 20030812
- CLM What is claimed is:
 - carrier comprising the steps of: (a) providing a plurality of large size milling media to the milling chamber of a media mill and. forming a depth filter therefrom on an exit screen or separator in the milling chamber; (b) adding to said. . .

 5. The process of claim 1, wherein the surface active substance is selected from the group consisting of phospholipids, natural surfactants, nonionic surfactants, anionic surfactants, cationic surfactants, and colloidal clays.
 - 6. The process of claim 5, wherein the surface active substance is a **phospholipid** or mixture of **phospholipids**.
 - 7. The process of claim 6, wherein the **phospholipid** is selected from the group consisting of egg lecithin, egg phosphatidylcholine, hydrogenated egg phosphatidylcholine, soy phosphatidylcholine, dimyristoylphosphatidylglycerol, and combinations thereof.
 - . pigment, a solid photographic material, a solid cosmetic ingredient, a solid support material, a solid toner material, and a solid pharmaceutical agent.
 - 9. The process of claim 8, wherein the **pharmaceutical agent** is a therapeutic agent or a diagnostic imaging agent.
 - 10. The process of claim 8, wherein the **pharmaceutical agent** is a poorly water-soluble drug, an essentially water-insoluble drug, or an insoluble drug.
 - 11. The process of claim 9, wherein the **pharmaceutical agent** is selected from the group consisting of anesthetic agents, ace inhibiting agents, antithrombotic agents, anti-allergic agents, antibacterial agents, antibiotic agents,...
 12. The process of claim 8, wherein the **pharmaceutical agent** is selected from the group consisting of albendazole, albendazole sulfoxide, alfaxalone, acetyl digoxin, acyclovir, acyclovir analogs, aiprostadil, aminofostin, anipamil, antithrombin.
 - 13. The process of claim 8, wherein the **pharmaceutical agent** is selected from the group consisting of acyclovir, alprazolam, altretamine, amiloride, amiodarone, benztropine mesylate, bupropion, cabergoline, candesartan, cerivastatin, chlorpromazine, ciprofloxacin,.
- => s dispersion mill L32 353 DISPERSION MILL
- => s dispersion mill/clm
 L33 15 DISPERSION MILL/CLM
- => d his

(FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)

FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007

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                2 S L3 AND L5
L7
                1 S L4 AND L6
L8
               20 S PHOSPHILIPID?
L9
               20 S PHOSPHILIPID?
L10
            50032 S PHOSPHOLIPID?
L11
L12
             5315 S PHOSPHOLIPID?/CLM
L13
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                9 S L6 AND L12
L14
L15
               41 S L3 AND L11
 L16
                2 S L5 AND L15
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1.17
           436672 S (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
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            45055 S L11 AND L17
L19
L20
              228 S L6 AND L18
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              430 S L5 AND L19
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 L22
L23.
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L24
                7 S L6 AND L23
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 L28
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               51 S L5 AND L28
. L30
                4 S L6 AND L29
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 L32
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 L33
 => s 111 and 132
 L34
              41 L11 AND L32
 => s 112 and 133
               1 L12 AND L33
 => d
 L35 ANSWER 1 OF 1 USPATFULL on STN
 Full Text
        2005:195837 USPATFULL ·
 ΔN
 TТ
        Wet-micro grinding
         Fu, Shu-Wen, Hsin Chu City, CHINA
 IN
        Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
 PΙ
        US 2005169978
                             A1 20050804
        US 2004-769118
                              A1 20040129 (10)
 ΑI
 DT
        Utility
 FS
        APPLICATION
 LN.CNT 435
 INCL
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         INCLS: 514/034.000; 514/283.000; 514/449.000
        NCLM: 424/450.000
NCLS: 514/034.000
 NCL
                514/034.000; 514/283.000; 514/449.000
 IC
         [7]
         ICM
                A61K009-127
         ICS
                A61K009-16; A61K009-50
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.
 => d 134 1-41
 L34 ANSWER 1 OF 41 USPATFULL on STN
 Full Text
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2007:75024 USPATFULL

 ΔM

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Nanoparticulate leukotriene receptor antagonist/corticosteroid
TT
       formulations
IN
       Liversidge, Gary, West Chester, PA, UNITED STATES
       Jenkins, Scott, Downingtown, PA, UNITED STATES
       Wertz, Christian F., Lansdale, PA, UNITED STATES
Bosch, H. William, Bryn Mawr, PA, UNITED STATES
PA
       Elan Pharma International Limited (U.S. corporation)
                             A1 20070322
PΙ
       US 2007065374
       US 2006-376553
                             A1
                                 20060316 (11)
AΤ
       US 2005-662339P
                              20050316 (60)
PRAI
DT
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       APPLICATION
FS
LN.CNT 3132
INCL
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        INCLS: 424/489.000; 514/312.000; 514/393.000; 514/171.000
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       NCLS: 424/489.000; 514/171.000; 514/312.000; 514/393.000
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L34 ANSWER 2 OF 41 USPATFULL on STN
Full Text
        2007:48227 USPATFULL
ΔN
TI
       Nanoparticulate benidipine compositions
       Liversidge, Gary G., West Chester, PA, UNITED STATES
IN
        Jenkins, Scott, Downingtown, PA, UNITED STATES
        Elan Pharma International, Limited (U.S. corporation)
PA
       US 2007042049
                             A1 20070222
PΙ
                                 20060605 (11)
ΑI
        US 2006-446589
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       US 2005-687145P
                              20050603 (60)
PRAI
       Utility
DT
        APPLICATION
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LN.CNT 1802
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        INCLS: 977/906.000
       NCLM: 424/489.000
NCLS: 977/906.000
NCL
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 3 OF 41 USPATFULL on STN
Full Text
AN
        2007:17120 USPATFULL
        Treatment of eye disorders with sirtuin modulators
TI
        Milburn, Michael, Cary, NC, UNITED STATES
IN
        Westphal, Christoph H., Brookline, MA, UNITED STATES
       Dipp, Michelle, Cambridge, MA, UNITED STATES
Sirtris Pharmaceuticals, Inc., Cambridge, MA, UNITED STATES, 02139 (U.S.
PA
        corporation)
PΙ
        US 2007014833
                              A1 20070118
AΙ
        US 2005-374278
                              A1 20051028 (11)
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        US 2005-667179P
                              20050330 (60)
        US 2005-684252P
                              20050525 (60)
DT
       Utility
FS
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LN.CNT 6021
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        INCLS: 514/058.000; 514/043.000; 514/733.000; 977/906.000
NCL
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        NCLM:
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 4 OF 41 USPATFULL on STN
Full Text
AN
        2007:4434 USPATFULL
        Nanoparticulate clopidogrel formulations
TI
        Liversidge, Gary G., West Chester, PA, UNITED STATES Jenkins, Scott, Downingtown, PA, UNITED STATES
IN
PA
        Elan Pharma International Limited (U.S. corporation)
                             A1 20070104
A1 20060509
       US 2007003628
PΙ
AΙ
        US 2006-430180
                                  20060509 (11)
       US 2005-679398P
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PRAI
DT
        Utility
        APPLICATION
FS
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LN.CNT 1856
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INCL
       INCLS: 977/906.000
               424/489.000
NCL
       NCLM:
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       NCLS:
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 5 OF 41 USPATFULL on STN
Full Text
       2006:340319 USPATFULL
AN
       Treatment of eye disorders with sirtuin modulators
TI
TN
       Milburn, Michael, Cary, NC, UNITED STATES
       Westphal, Christoph H., Brookline, MA, UNITED STATES
       Livingston, David J., Barrington, RI, UNITED STATES
       Elliott, Peter, Marlborough, MA, UNITED STATES
Lambert, Philip, Northborough, MA, UNITED STATES
       Normington, Karl D., Acton, MA, UNITED STATES
ΡI
       US 2006292099
                             A1 20061228
                             A1 20060524 (11)
AΙ
       US 2006-440584
       US 2005-684252P
US 2006-788358P
                             20050525 (60)
PRAI
                             20060330 (60)
ידים
       Utility
FS
       APPLICATION
LN.CNT 6624
INCL
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       NCLM: 424/070.100
NCL
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 6 OF 41 USPATFULL on STN
Full Text
        2006:288153 USPATFULL
AN
       Nanoparticulate lipase inhibitor formulations
TI
       Liversidge, Gary G., West Chester, PA, UNITED STATES
IN
        Jenkins, Scott, Downingtown, PA, UNITED STATES
       Elan Pharma International, Limited (U.S. corporation)
PΑ
PΙ
       US 2006246141
                             A1 20061102
       US 2006-402257
                             A1 20060412 (11)
ΑI
PRAI
       US 2005-670416P
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NCL
       NCLM: 424/489.000
       NCLS: 514/449.000; 977/906.000
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 7 OF 41 USPATFULL on STN
Full Text
AN
        2006:253903 USPATFULL
ΤI
        Nanoparticulate corticosteroid and antihistamine formulations
        Liversidge, Gary, West Chester, PA, UNITED STATES
TN
        Jenkins, Scott, Downingtown, PA, UNITED STATES
        Bosch, H. William, Bryn Mawr, PA, UNITED STATES
       Wertz, Christian F., Lansdale, PA, UNITED STATES Elan Pharma International Limited (U.S. corporation)
PA
                            A1 20060928
PΤ
       US 2006216353
       US 2006-387068
                             A1 20060323 (11)
AΙ
       US 2005-664359P
                             20050323 (60)
PRAI
        Utility
DT
       APPLICATION
FS
LN.CNT 2578
INCL
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       NCLM: 424/489.000
NCLS: 424/046.000; 514/171.000; 514/217.050; 977/906.000
NCL
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 8 OF 41 USPATFULL on STN
Full Text
AN
        2006:247250 USPATFULL
        Nanoparticulate bisphosphonate compositions
TT
```

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Liversidge, Gary G., West Chester, PA, UNITED STATES
ΙN
       Jenkins, Scott, Downingtown, PA, UNITED STATES
       Elan Pharma International Limited (U.S. corporation)
PA
                           A1 20060921
A1 20060317 (11)
PΙ
       US 2006210639
       US 2006-377650
US 2005-662693P
ΑI
PRAI
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DТ
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       NCLS:
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 9 OF 41 USPATFULL on STN
Full Text
       2006:247249 USPATFULL
AN
TI
       Injectable compositions of nanoparticulate immunosuppressive compounds
IN
       Liversidge, Gary G., West Chester, PA, UNITED STATES
       Jenkins, Scott, Downingtown, PA, UNITED STATES
       Elan Pharma International Limited (U.S. corporation)
PΑ
ΡI
       US 2006210638
                           A1 20060921
ΑI
       US 2006-376554
                            A1
                               20060316 (11)
       US 2005-662692P
                            20050317 (60)
PRAI
DT
       Utility
       APPLICATION
FS
LN.CNT 2139
INCL
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NCL
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       NCLS:
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 10 OF 41 USPATFULL on STN
Full Text
       2006:247233 USPATFULL
ΑN
TI
       Surface modified particulate compositions of biologically active
       Pace, Gary W., Winchester, MA, UNITED STATES
IN
       Mishra, Awadhesh K., Verdun, CANADA
       Snow, Robert A., West Chester, PA, UNITED STATES
       Skyepharma Canada Inc. (U.S. corporation)
PA
PΙ
       US 2006210622
                            A1 20060921
                            A1 20051114 (11)
       US 2005-272902
AΤ
       Continuation of Ser. No. US 2000-667328, filed on 21 Sep 2000, ABANDONED
RLI
       US 1999-154964P
                            19990921 (60)
PRAI
DΤ
       Utility
FS
       APPLICATION
LN.CNT 1297
INCL
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NCL
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 11 OF 41 USPATFULL on STN
Full Text
AN
       2006:240143 USPATFULL
ΤI
       Formulations of a nanoparticulate finasteride, dutasteride or tamsulosin
       hydrochloride, and mixtures thereof
IN
       Liversidge, Gary, Westchester, PA, UNITED STATES
       Jenkins, Scott, Downingtown, PA, UNITED STATES
PA
       Elan Pharma International Limited (U.S. corporation)
PΙ
       US 2006204588
                            A1
                                20060914
                               20060310 (11)
       US 2006-372227
AΙ
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PRAI
       US 2005-660229P
                            20050310 (60)
DT
       Utility
FS
       APPLICATION
LN.CNT 2333
INCL
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       .INCLS: 977/906.000
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NCL
       NCLM: 424/490.000
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 12 OF 41 USPATFULL on STN
Full Text
       2006:233444 USPATFULL
ΑN
ΤI
       Aerosol and injectable formulations of nanoparticulate benzodiazepine
       Liversidge, Gary, West Chester, PA, UNITED STATES
IN
       Jenkins, Scott, Downingtown, PA, UNITED STATES
       Elan Pharma International Limited (U.S. corporation)
PA
       US 2006198896
PΤ
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       US 2006-354249
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AΙ
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       US 2005-653034P
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PRAI
       Utility
DT
FS
       APPLICATION
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 13 OF 41 USPATFULL on STN
Full Text
       2006:221286 USPATFULL
ΑN
       Nanoparticulate formulations of docetaxel and analogues thereof
TI
       Liversidge, Gary, Westchester, PA, UNITED STATES
IN
       Jenkins, Scott, Downingtown, PA, UNITED STATES
Liversidge, Elaine, Westchester, PA, UNITED STATES
       Elan Pharma International Limited (U.S. corporation)
PA
PΙ
       US 2006188566
                            A1 20060824
                            A1 20060224 (11)
       US 2006-361055
AΤ
PRAI
       US 2005-655934P
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DТ
FS
       APPLICATION
LN.CNT 2814
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       NCLM: 424/451.000
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 14 OF 41 USPATFULL on STN
Full Text
       2006:188330 USPATFULL
AN
ΤI
       Nanoparticulate tacrolimus formulations
       Jenkins, Scott, Dowingtown, PA, UNITED STATES
TN
       Liversidge, Gary, West Chester, PA, UNITED STATES
       Liversidge, Elaine, West Chester, PA, UNITED STATES
Elan Pharma International Limited (U.S. corporation)
PA
       US 2006159766
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 15 OF 41 USPATFULL on STN
Full
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AN
       2006:188193 USPATFULL
       Nanoparticulate benzothiophene formulations
ΤI
IN
       Liversidge, Gary, West Chester, PA, UNITED STATES
       Jenkins, Scott, Downingtown, PA, UNITED STATES
PΑ
       Elan Pharma International Limited (U.S. corporation)
PΙ
       US 2006159628
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US 2005-292314
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DT
       Utility
       APPLICATION
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       NCLS: 424/489.000; 514/320.000; 977/906.000
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 16 OF 41 USPATFULL on STN
Full Text
       2006:182514 USPATFULL
AN
TI
       Injectable nanoparticulate olanzapine formulations
IN
       Liversidge, Gary, West Chester, PA, UNITED STATES
       Jenkins, Scott, Downingtown, PA, UNITED STATES
       Liversidge, Elaine Merisko, West Chester, PA, UNITED STATES
PA
       Elan Pharma International Limited (U.S. corporation)
       US 2006154918
US 2005-274887
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A1 20051116
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ΑI
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 17 OF 41 USPATFULL on STN
Full Text
AN
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       Wet-micro grinding
ΤI
IN
       Fu, Shu-Wen, Hsin Chu City, CHINA
       Cheng, Chien-Hsin D., Marietta, GA, UNITED STATES
       Cheng, Jui-Ching, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
       Hsiau, Yun-Yi, Tao Yuan City, TAIWAN, PROVINCE OF CHINA
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A1 20040129 (10)
       US 2005169978
US 2004-769118
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       Utility
DT
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       NCLM:
       NCLS:
               514/034.000; 514/283.000; 514/449.000
IC
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               A61K009-127
               A61K009-16; A61K009-50
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 18 OF 41 USPATFULL on STN
Full Text
       2005:10449 USPATFULL
AN
       Methods and compositions that enhance bioavailability of coenzyme-Q10
TI
       Parkhideh, Daryoush, Old Field, NY, UNITED STATES
IN
PΔ
       NBTY, Inc., Bohemia, NY (U.S. corporation)
                         A1 20050113
A1 20040507 (10)
ΡI
       US 2005008581
       US 2004-840423
ΑI
PRAI
       US 2003-476197P
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       Utility
DT
       APPLICATION
LN.CNT 1002
INCL
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CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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L34 ANSWER 19 OF 41 USPATFULL on STN
Full Text
ΑN
        2004:334304 USPATFULL
        Cyclooxygenase-2 inhibitor compositions having rapid onset of
TI
        therapeutic effect
        Kararli, Tugrul T., Skokie, IL, UNITED STATES
IN
        Kontny, Mark J., Libertyville, IL, UNITED STATES Desai, Subhash, Wilmette, IL, UNITED STATES
        Hageman, Michael J., Portage, IL, UNITED STATES
        Haskell, Royal J., Kalamazoo, MI, UNITED STATES
        US 2004265382
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PΙ
        US 7172769
                               B2
                                   20070206
        US 2002-31898
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                                    20020730 (10)
AΤ
        WO 2000-US32434
                                    20001206
                               19991209 (60)
PRAI
        US 1999-169856P
DТ
        Utility
        APPLICATION
FS
LN.CNT 1963
        INCLM: 424/469.000
INCL
        INCLS: 514/406.000; 424/452.000
                424/501.000; 424/469.000
NCL
                424/489.000; 424/452.000; 514/406.000
        NCLS:
IC
        [7]
        ICM
                A61K009-26
        ICS
                A61K031-415; A61K009-48
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 20 OF 41 USPATFULL on STN
Full Text
        2004:76129 USPATFULL
ΑN
        Nanoparticulate beclomethasone dipropionate compositions
TI
        Wood, Ray W., King of Prussia, PA, UNITED STATES
IN
        DeCastro, Lan, King of Prussia, PA, UNITED STATES
Bosch, H. William, Bryn Mawr, PA, UNITED STATES
        Elan Pharma International Ltd. (U.S. corporation)
PΔ
PΙ
        US 2004057905
                               A1 20040325
                              A1 20030923 (10)
        US 2003-667472.
ΑI
        Continuation of Ser. No. US 2000-577489, filed on 25 May 2000, PENDING Division of Ser. No. US 1997-948216, filed on 9 Oct 1997, GRANTED, Pat.
RLI
        No. US 6264922 Continuation of Ser. No. US 1996-589681, filed on 19 Jan
        1996, ABANDONED Continuation-in-part of Ser. No. US 1995-394103, filed
        on 24 Feb 1995, ABANDONED
DT
        Utility
        APPLICATION -
FS
LN.CNT 989
INCL
        INCLM: 424/009.453
        INCLS: 424/045.000
NCL
        NCLM: 424/009.453
        NCLS:
                424/045.000
IC
        [7]
        ICM
                A61K049-04
                A61L009-04
        ICS
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 21 OF 41 USPATFULL on STN
Full Text
ΔN
        2003:92740 USPATFULL
        Cyclooxygenase-2 inhibitor compositions having rapid onset of
ΤI
        therapeutic effect
TN
        Kararli, Tugrul T., Skokie, IL, UNITED STATES
        Kontny, Mark J., Libertyville, IL, UNITED STATES Desai, Subhash, Wilmette, IL, UNITED STATES Hageman, Michael J., Portage, MI, UNITED STATES
        Haskell, Royal J., Kalamazoo, MI, UNITED STATES
        Hassan, Fred, Peapack, NJ, UNITED STATES
        Forbes, James C., Glenview, IL, UNITED STATES
                               A1 20030403
A1 20010605 (9)
PI ·
        US 2003064098
        US 2001-874504
ΑI
        Continuation-in-part of Ser. No. US 2000-731350, filed on 6 Dec 2000,
RLI
        PENDING
```

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PRAI
       US 1999-169856P
                             19991209 (60)
DT
       Utility
FS
       APPLICATION
LN.CNT 2296
        INCLM: 424/465.000
INCL
       INCLS: 514/263.340
NCL
       NCLM: 424/465.000
       NCLS: 514/263.340
        [7]
IC
        ICM
               A61K031-522
        ICS
               A61K009-20
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 22 OF 41 USPATFULL on STN
Full Text
        2002:258478 USPATFULL
AN
        Cyclooxygenase-2 inhibitor compositions having rapid onset of
ΤI
        therapeutic effect
       Kararli, Tugrul T., Skokie, IL, UNITED STATES
Kontny, Mark J., Libertyville, IL, UNITED STATES
Desai, Subhash, Wilmette, IL, UNITED STATES
TN
       Hageman, Michael J., Portage, MI, UNITED STATES
       Haskell, Royal J., Kalamazoo, MI, UNITED STATES
       Hassan, Fred, Peapack, NJ, UNITED STATES
        Forbes, James C., Glenview, IL, UNITED STATES
                                  20021003
PΙ
       US 2002142045
                              A1
AΙ
       US 2002-113157
                             A1 20020401 (10)
        Continuation of Ser. No. US 2001-874504, filed on 5 Jun 2001, PENDING
RLI
        Continuation-in-part of Ser. No. US 31898, PENDING A 371 of
        International Ser. No. WO 2000-US32434, filed on 6 Dec 2000, UNKNOWN
                             19991209 (60)
PRAI
        US 1999-169856P
       Utility
DT
        APPLICATION
FS
LN.CNT 2294
INCL
        INCLM: 424/489.000
        INCLS: 514/263.310; 514/263.320
        NCLM: 424/489.000
NCL
        NCLS:
               514/263.310; 514/263.320
IC
        [7]
        ICM
               A61K031-522
        ICS
               A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 23 OF 41 USPATFULL on STN
Full Text
        2002:90568 USPATFULL
AN
        Milled particles
TT
        Verhoff, Frank, Cincinnati, OH, UNITED STATES Pace, Gary W., Winchester, MA, UNITED STATES
TN
        Snow, Robert A., West Chester, PA, UNITED STATES
        Millar, Fay, Ladson, SC, UNITED STATES
        US 2002047058
                             A1 20020425
PΙ
                              B2 20031021
A1 20010829 (9)
        US 6634576
        US 2001-940864
AΤ
PRAI
        US 2000-229042P
                              20000831 (60)
        Utility
DT.
        APPLICATION
LN.CNT 4197
INCL
        INCLM: 241/026.000
        INCLS: 424/489.000
               241/021.000; 241/026.000
NCL
        NCLM:
        NCLS:
               241/184.000; 424/489.000
IC
        [7]
        ICM
               B02C017-00
        ICS
               A61K009-14
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 24 OF 41 USPATFULL on STN
L34
<u>Full</u>
     Text
        2002:61428 USPATFULL
AN
        Ophthalmic formulation of a selective cyclooxygenase-2 inhibitory drug
ΤI
TN
        Kararli, Tugrul T., Skokie, IL, UNITED STATES
```

```
Bandyopadhyay, Rebanta, Portage, MI, UNITED STATES
       Singh, Satish K., Portage, MI, UNITED STATES
       Hawley, Leslie C., Kalamazoo, MI, UNITED STATES
                                20020321
       US 2002035264
                            A1
ÞΤ
ΑI
       US 2001-904098
                            A1
                                20010712 (9)
       US 2000-218101P
                            20000713 (60)
PRAI
       US 2001-279285P
                            20010328 (60)
       US 2001-294838P
                            20010531 (60)
                            20010606 (60)
       US 2001-296388P
       Utility
DT
FS
       APPLICATION
LN.CNT 1825
INCL .
       INCLM: 546/300.000
       INCLS: 546/301.000; 564/081.000; 548/377.100; 514/406.000; 514/351.000;
               514/603.000
NCL
       NCLM:
               546/300.000
               546/301.000; 548/377.100; 564/081.000
       NCLS:
IC
       [7]
       ICM
               A61K031-435
       ICS
               A61K031-44; A61K031-415
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 25 OF 41 USPATFULL on STN
Full Text
       2001:116531 USPATFULL
AN
TI
       Nebulized aerosols containing nanoparticle dispersions
       Wood, Ray W., Ft. Washington, PA, United States
IN
       DeCastro, Lan, West Chester, PA, United States
       Bosch, H. William, Bryn Mawr, PA, United States
PA
       Elan Pharma International Ltd., Shannon, Ireland (non-U.S. corporation)
ΡI
       US 6264922
                            B1 20010724
       US 1997-948216
ΑI
                                19971009 (8)
       Continuation of Ser. No. US 1996-589681, filed on 19 Jan 1996, now
RLI
       abandoned Continuation-in-part of Ser. No. US 1995-394103, filed on 24
       Feb 1995, now abandoned
DT
       Utility
       GRANTED
FS
LN.CNT 1115
INCL
       INCLM: 424/045.000
       INCLS: 424/009.400; 424/400.000; 424/489.000
NCL
       NCLM:
              424/045.000
               424/009.400; 424/400.000; 424/489.000
       NCLS:
IC
       [7]
       ICM
               A61L009-04
               A61K049-04; A61K009-00; A61K009-14
       TCS
EXF
       424/45; 424/46; 424/489; 424/450; 514/826
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 26 OF 41 USPATFULL on STN
Full Text
       2000:149765 USPATFULL
ΑN
       Bixin colorant compositions
TТ
       Jon, Shiu-Chung, Westmont, IL, United States
Ramagopal, Rama, Bolingbrook, IL, United States
       Nicholson, Myron Donald, Lamont, IL, United States
       Viskase Corporation, Chicago, IL, United States (U.S. corporation)
PΑ
                                 20001107
PΙ
       US 6143344
ΑI
       US 1999-255006
                                 19990222 (9)
RLI
       Division of Ser. No. US 1993-124063, filed on 21 Sep 1993, now patented,
       Pat. No. US 5955126
DT
       Utility
FS
       Granted
LN.CNT 1973
INCL
       INCLM: 426/540.000
NCL
       NCLM:
               426/540.000
TC
        [7]
        ICM
               A23L001-27
EXF
       426/250; 426/540
L34 ANSWER 27 OF 41 USPATFULL on STN
Full Text
ΔN
       1999:113414 USPATFULL
```

```
TΙ
        Self-coloring food casing
        Jon, Shiu-Chung, Westmont, IL, United States
IN
        Ramagopal, Rama, Bolingbrook, IL, United States
        Nicholson, Myron Donald, Lamont, IL, United States
PΑ
        Viskase Corporation, Chicago, IL, United States (U.S. corporation)
                                    19990921
        US 5955126
PT
ΑI
        US 1993-124063
                                    19930921 (8)
        Utility
DT
FS
        Granted
LN.CNT 1968
        INCLM: 426/105.000
INCL
        INCLS: 426/135.000
NCL
        NCLM:
                426/105.000
        NCLS:
                426/135.000
IC
        [6]
        ICM
                A22C013-00
        426/93; 426/105; 426/135; 426/250; 426/540; 138/118.1; 428/34.8
EXF
     ANSWER 28 OF 41 USPATFULL on STN
L34
Full
     Text
        1998:138477 USPATFULL
AN
        Reduction of intravenously administered nanoparticulate-formulation-
TI
        induced adverse physiological reactions
        de Garavilla, Lawrence, Downingtown, PA, United States
IN
        Liversidge, Elaine M., West Chester, PA, United States
Liversidge, Gary G., West Chester, PA, United States
Nanosystems L.L.C., King of Prussia, PA, United States (U.S.
PA
        corporation)
        US 5834025
PT
                                    19981110
        US 1996-696754
US 1995-4488P
AΤ
                                    19960814 (8)
PRAI
                               19950929 (60)
DТ
        Utility
        Granted
LN.CNT 994
INCL
        INCLM: 424/501.000
        INCLS: 424/502.000; 428/402.210; 264/004.300
NCI.
                424/501.000
        NCLM:
        NCLS:
                264/004.300; 424/502.000; 428/402.210
TC
        [6]
        ICM
                A61K009-50
        ICS
                B32B005-16; B01J013-02
EXF
        424/501; 424/502; 428/402.21; 264/4.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 29 OF 41 USPATFULL on STN
L34
<u>Full</u>
     Text
AN
        1998:47931 USPATFULL
ΤI
        Aerosols containing beclomethazone nanoparticle dispersions
        Wiedmann, Timothy S., Minneapolis, MN, United States
IN
        Wood, Ray W., Ft. Washington, PA, United States
DeCastro, Lan, West Chester, PA, United States
NanoSystems, L.L.C., King of Prussia, PA, United States (U.S.
PA
        corporation)
ΡI
        US 5747001
                                    19980505
AΙ
        US 1995-393973
                                    19950224 (8)
        Utility
DT
        Granted
LN.CNT 895
INCL
        INCLM: 424/045.000
        INCLS: 424/046.000; 424/489.000
NCL
                424/045.000
        NCLM:
        NCLS:
                424/046.000; 424/489.000
IC
        [6]
        ICM
                A61K009-12
        424/45; 424/46; 424/489; 514/826
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 30 OF 41 USPATFULL on STN
L34
<u>Full</u>
     Text
ΑN
        1998:17093 USPATFULL
ΤI
        Nanoparticles containing the R(-)enantiomer of ibuprofen
IN
        Ruddy, Stephen B., Schwenksville, PA, United States
```

```
Roberts, Mary E., Downingtown, PA, United States
       NanoSystems L.L.C., Collegeville, PA, United States (U.S. corporation)
PA
PΙ
       US 5718919
                                19980217
       US 1995-393648
ΑI
                                19950224 (8)
DT
       Utility
       Granted
LN.CNT 693
INCL
       INCLM: 424/489.000
       INCLS: 424/470.000; 424/490.000; 424/488.000
NCL
              424/489.000
       NCLM:
              424/470.000; 424/488.000; 424/490.000; 977/775.000; 977/915.000
       NCLS:
IC
       [6]
       ICM
              A61K009-16
       424/489; 424/490; 424/472; 424/488; 562/496; 514/570; 548/339
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 31 OF 41 USPATFULL on STN
Full Text
AN
       96:118361 USPATFULL
TI
       Butylene oxide-ethylene oxide block copolymer surfactants as stabilizer
       coatings for nanoparticle compositions
       Wong, Sui-Ming, Collegeville, PA, United States
TN
       NanoSystems L.L.C., Collegeville, PA, United States (U.S. corporation)
PA
ΡI
       US 5587143
                                19961224
       US 1994-267082
ΑI
                                19940628 (8)
       Utility
DT
FS
       Granted
LN.CNT 525
INCL
       INCLM: 424/009.100
       INCLS: 424/497.000; 424/009.455; 424/009.450
              424/009.100
NCL
       NCLM:
              424/009.450; 424/009.455; 977/746.000; 977/773.000; 977/795.000;
       NCLS:
              977/847.000; 977/890.000; 977/897.000; 977/915.000; 977/926.000;
              977/927.000; 977/928.000
IC
       [6]
       ICM
              A61K049-00
              A61K049-04
       ICS
EXF
       424/78.31; 424/490; 424/497; 424/4.9; 514/772.3
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 32 OF 41 USPATFULL on STN
Full Text
       96:99005 USPATFULL
AN
TI
       Sulfated nonionic block copolymer surfactants as stabilizer coatings for
       nanoparticle compositions
TN
       Wong, Sui-Ming, Collegeville, PA, United States
       Newington, Ian M., Hazlemere, England
       Liversidge, Elaine M., West Chester, PA, United States
       McIntire, Gregory L., West Chester, PA, United States
       Pitt, Alan R., Sandridge, United Kingdom
Shaw, Jack M., Aberdeen, MD, United States
PA
       Nano Systems L.L.C., Collegeville, PA, United States (U.S. corporation)
ΡI
       US 5569448
                                19961029
AΙ
       US 1995-378022
                                19950124 (8)
       Utility
DТ
FS
       Granted
LN.CNT 592
INCL
       INCLM: 424/009.450
       INCLS: 424/489.000; 424/490.000; 424/213.360
NCL
              424/009.450
       NCLM:
              424/489.000; 424/490.000; 427/213.360; 977/715.000; 977/773.000;
       NCLS:
              977/847.000; 977/927.000
IC
       [6]
       ICM
              A61K009-14
       424/489; 424/490; 424/9.45; 427/213.36
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 33 OF 41 USPATFULL on STN
Full Text
ΑN
       96:94322 USPATFULL
TТ
       Polyalkylene block copolymers as surface modifiers for nanoparticles
IN
       Wong, Sui-Ming, Collegeville, PA, United States
```

```
Cooper, Eugene R., Berwyn, PA, United States
       Xu, Shugian, Exton, PA, United States
PA
       NanoSystems L.L.C., Collegeville, PA, United States (U.S. corporation)
PΤ
       US 5565188
                                19961015
       US 1995-393972
                                19950224 (8)
ΑI
       Utility
DT
       Granted
FS
LN.CNT 952
       INCLM: 424/009.411
INCL
       INCLS: 424/009.400; 424/009.450; 424/489.000; 424/495.000; 424/499.000;
              514/718.000; 514/975.000
              424/009.411
NCL
       NCLM:
              424/009.400; 424/009.450; 424/489.000; 424/495.000; 424/499.000;
       NCLS:
              514/718.000; 514/975.000; 977/745.000; 977/773.000; 977/775.000; 977/788.000; 977/927.000
IC
       [6]
              A61K009-14
       ICM
EXF
       424/489; 424/495; 424/499; 424/4; 424/5; 514/718; 514/975
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 34 OF 41 USPATFULL on STN
Full Text
AN
       95:105578 USPATFULL
       Method of preparing nanoparticle compositions containing charged
TI
       phospholipids to reduce aggregation
       Na, George C., Fort Washington, PA, United States
IN
       Rajagopalan, Natarajan, Phoenixville, PA, United States
       Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PA
       US 5470583
                                19951128
ΡI
ΑI
       US 1994-240309
                                19940510 (8)
       Division of Ser. No. US 1992-989281, filed on 11 Dec 1992, now patented,
RLI .
       Pat. No. US 5336507
       Utility
FS
       Granted
LN.CNT 473
INCL
       INCLM: 424/489.000
       INCLS: 424/484.000; 424/493.000; 424/497.000
NCL
       NCLM:
              424/489.000
              424/484.000; 424/493.000; 424/497.000; 977/746.000; 977/773.000;
       NCLS:
               977/788.000; 977/847.000
IC
        [6]
       ICM
              A61K009-14
       424/450; 424/4; 424/484; 424/489; 424/490-502; 436/829; 514/557;
EXF
       514/568; 264/5
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 35 OF 41 USPATFULL on STN
Full Text
AN
       95:80083 USPATFULL
       Method of making nanoparticulate X-ray blood pool contrast agents using
TI
       high molecular weight nonionic surfactants
       Na, George C., Fort Washington, PA, United States
TN
       Rajagopalan, Natarajan, Phoenixville, PA, United States
       Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
PA
PΙ
       US 5447710
                                19950905
       US 1994-242492
ΑI
                                19940513 (8)
RLI
       Division of Ser. No. US 1992-991909, filed on 17 Dec 1992, now patented,
       Pat. No. US 5326552
DT
       Utility
       Granted
FS
LN.CNT 545
INCL
       INCLM: 424/009.455
       INCLS: 424/489.000; 424/499.000; 424/009.400; 514/005.000; 514/718.000;
               514/975.000
NCL
       NCLM:
               424/009.455
       NCLS:
               424/009.400; 424/489.000; 424/499.000; 514/005.000; 514/718.000;
               514/975.000
TC
        [6]
       ICM
               A61K049-04
              A61K009-14
       ICS
        424/5; 424/4; 424/489; 424/499; 514/5; 514/718; 514/975
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

```
L34 ANSWER 36 OF 41 USPATFULL on STN
Full Text
AN
        95:60162 USPATFULL
       Use of tyloxapole as a nanoparticle stabilizer and dispersant
TT
       June, Siegfried K., Madison, CT, United States
Eastman Kodak Company, Rochester, NY, United States (U.S. corporation)
IN
PA
PΤ
       US 5429824
                                  19950704
       US 1992-990874
                                  19921215 (7)
ΑI
       Utility
DT
FS
       Granted
LN.CNT 625
       INCLM: 424/489.000
INCL
        INCLS: 424/009.100; 424/490.000; 424/497.000; 514/951.000; 514/975.000
NCL
               424/489.000
               424/009.100; 424/490.000; 424/497.000; 514/951.000; 514/975.000
IC
        [6]
               A61K009-14
        TCM
        ICS
               A61K009-51
        424/489; 424/490; 424/497; 424/491; 424/492; 424/494; 424/496; 424/498
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 37 OF 41 USPATFULL on STN
Full Text
AN
        94:86191 USPATFULL
        Use of purified surface modifiers to prevent particle aggregation during
TI
        sterilization
        Hollister, Kenneth R., Chester Springs, PA, United States
IN
        Ladd, David, Wayne, PA, United States
       McIntire, Gregory L., West Chester, PA, United States Na, George C., Fort Washington, PA, United States
        Rajagopalan, Natarajan, Phoenixville, PA, United States
        Yuan, Barbara O., Villanova, PA, United States
        Sterling Winthrop Inc., New York, NY, United States (U.S. corporation)
PA
PΙ
        US 5352459
                                  19941004
       US 1992-991639
                                  19921216 (7)
AΙ
        Utility
DT
FS
        Granted
LN.CNT 442
        INCLM: 424/489.000
INCL
        INCLS: 514/951.000; 424/004.000
NCL
        NCLM: 424/489.000
               424/009.450; 514/951.000
        NCLS:
IC
        [5]
        ICM
               A61K009-14
        ICS
               A61K047-34
        424/489; 424/497; 424/501; 424/4; 428/402; 428/402.24; 428/403; 428/407;
EXF
        430/107; 430/111; 430/138; 502/8; 502/9; 502/402; 422/26; 514/951;
        252/357
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 38 OF 41 USPATFULL on STN
Full Text
        94:68599 USPATFULL
AN
        Use of charged phospholipids to reduce nanoparticle aggregation
ΤI
        Na, George C., Fort Washington, PA, United States
IN
       Rajagopalan, Natarajan, Phoenixville, PA, United States
Sterling Winthrop Inc., New York, NY, United States (U.S. corporation)
PΑ
        US 5336507
                                  19940809
PΙ
ΑI
        US 1992-989281
                                  19921211 (7)
DT
        Utility
FS
        Granted
LN.CNT 462
INCL
        INCLM: 424/489.000
        INCLS: 424/004.000; 424/484.000; 424/493.000; 424/497.000; 514/568.000
NCL
        NCLM:
               424/489.000
               424/009.400; 424/009.450; 424/484.000; 424/493.000; 424/497.000;
        NCLS:
               514/568.000; 977/746.000; 977/773.000; 977/788.000; 977/847.000
IC
        [5]
        424/450; 424/4; 424/484; 424/489; 424/490; 424/491; 424/492-502;
EXF
        436/829; 514/557; 514/568
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L34 ANSWER 39 OF 41 USPATFULL on STN
Full Text
AN
        94:57597 USPATFULL
        Formulations for nanoparticulate x-ray blood pool contrast agents using
TI
        high molecular weight nonionic surfactants
        Na, George C., Fort Washington, PA, United States
IN
        Rajagopalan, Natarajan, Phoenixville, PA, United States
Sterling Winthrop Inc., New York, NY, United States (U.S. corporation)
PA
                                    19940705
        US 5326552
PΙ
AΙ
        US 1992-991909
                                    19921217 (7)
DT
        Utility
FS
        Granted
LN.CNT 489
INCL
        INCLM: 424/004.000
        INCLS: 424/005.000; 424/489.000; 424/499.000; 514/005.000; 514/718.000;
                514/975.000
NCL
        NCLM:
                424/009.455
                424/489.000; 424/499.000; 514/005.000; 514/718.000; 514/975.000
        NCLS:
IC
        [5]
        ICM
                A61K049-04
        ICS
                A61K009-14; A61K009-50
        424/5; 424/4; 424/9; 424/489; 424/499; 514/5; 514/718; 514/975
EXF
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 40 OF 41 USPAT2 on STN
Full
      Text
        2004:334304 USPAT2
AN
ΤI
        Cyclooxygenase-2 inhibitor compositions having rapid onset of
        therapeutic effect
        Kararli, Tugrul T., Skokie, IL, UNITED STATES
IN
        Kontny, Mark J., Libertyville, IL, UNITED STATES
        Desai, Subhash, Wilmette, IL, UNITED STATES
        Hageman, Michael J., Portage, MI, UNITED STATES
Haskell, Royal J., Kalamazoo, MI, UNITED STATES4)
Pharmacia Corporation, St. Louis, MO, UNITED STATES (U.S. corporation)
PA
PΙ
        US 7172769
                               B2
                                    20070206
        WO 2001041760
                          20010614
        US 2000-31898
                                    20001206 (10)
AΙ
        WO 2000-US32434
                                    20001206
                                    20020730
                                               PCT 371 date
        US 1999-169856P
                               19991209 (60)
PRAI
DΤ
        Utility
        GRANTED
FS
LN.CNT
        1893
        INCLM: 424/501.000
INCL
        INCLS: 424/489.000
NCL
               424/501.000; 424/469.000
                424/489.000; 424/452.000; 514/406.000
        NCLS:
        424/489; 424/501
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L34 ANSWER 41 OF 41 USPAT2 on STN
Full Text
        2002:90568 USPAT2
AN
        Milled particles
TΙ
        Verhoff, Frank, Cincinnati, OH, United States
Pace, Gary W., Winchester, MA, United States
Snow, Robert A., West Chester, PA, United States
IN
        Millar, Fay, Ladson, SC, United States
PA
        RTP Pharma Inc., Durham, NC, United States (U.S. corporation)
                                   20031021
PΤ
        US 6634576
                               B2
        US 2001-940864
US 2000-229042P
                                    20010829 (9)
AΙ
PRAI
                                20000831 (60)
        Utility
ידים
        GRANTED
LN.CNT 4045
INCL
        INCLM: 241/021.000
        INCLS: 241/184.000
NCL
        NCLM:
                241/021.000; 241/026.000
                241/184.000; 424/489.000
        NCLS:
```

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IC
        [7]
       ICM
              B02C012-14
       241/21; 241/184; 241/171; 241/172; 241/23; 241/24.12
EXE
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
=> d kwic 34
      1 ANSWERS ARE AVAILABLE. SPECIFIED ANSWER NUMBER EXCEEDS ANSWER SET SIZE
The answer numbers requested are not in the answer set.
ENTER ANSWER NUMBER OR RANGE (1):end
=> d his
      (FILE 'HOME' ENTERED AT 20:52:08 ON 11 JUL 2007)
     FILE 'CA' ENTERED AT 20:52:20 ON 11 JUL 2007
              18 S (DRUG-LIPID COMPLEX?)
1.1
L2
              18 S (DRUG-LIPID COMPLEX?)/AB,BI
     FILE 'USPATFULL, USPAT2' ENTERED AT 20:54:00 ON 11 JUL 2007
              42 S (DRUG-LIPID COMPLEX?)
L3
L4
               3 S (DRUG-LIPID COMPLEX?)/CLM
           37993 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
L5
            1035 S (MECHANIC MEANS OR DISPERSION MILL OR ATTRITOR MILL OR VIBRAT
L6
               2 S L3 AND L5
1 S L4 AND L6
L7
L8
L9
              20 S PHOSPHILIPID?
              20 S PHOSPHILIPID?
L10
           50032 S PHOSPHOLIPID?
L11
            5315 S PHOSPHOLIPID?/CLM
L12
             478 S L5 AND L11
L13
               9 S L6 AND L12
L14
              41 S L3 AND L11
L15
               2 S L5 AND L15
L16
          975060 S (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
L17
          436672 S (DRUG OR ACTIVE COMPOUND OR ACTIVE INGREDIENT OR ACTIVE AGENT
L18
           45055 S L11 AND L17
L19
L20
             228 S L6 AND L18
             430 S L5 AND L19
L21
             228 S L6 AND L20
T<sub>1</sub>2.2
            2412 S L12 AND L18
L23
               7 S L6 AND L23
L24
L25
               7 S PHARMACETICAL AGENT
           12656 S PHARMACEUTICAL AGENT
L26
L27
            1762 S PHARMACEUTICAL AGENT/CLM
L28
            2845 S L11 AND L26
              64 S L12 AND L27
L29
L30
              51 S L5 AND L28
               4 S L6 AND L29
L31
             353 S DISPERSION MILL
L32
              15 S DISPERSION MILL/CLM
L33
L34
              41 S L11 AND L32
               1 S L12 AND L33
=> d 134 kwic 34
L34 ANSWER 34 OF 41 USPATFULL on STN
        Method of preparing nanoparticle compositions containing charged
TI
        phospholipids to reduce aggregation
           . . composition comprised of nanoparticles having a non-ionic
AB
        surfactant as a surface modifier adsorbed on the surface thereof and a
        charged phospholipid as a cloud point modifier associated therewith,
        which cloud point modifier is present in an amount sufficient to
       increase the. . . cloud point of the surface modifier. A preferred non-ionic surfactant surface modifier is a poloxamine or tyloxapol, and preferred charged phospholipid cloud point modifiers include
        dimyristoyl phosphatidyl glycerol. This invention further discloses a
        method of making nanoparticles having a non-ionic surfactant as a
        surface modifier adsorbed on the surface and a charged phospholipid as
        a cloud point modifier associated therewith, comprised of contacting
        said nanoparticles with the cloud point modifier for a time.
              . composition comprised of nanoparticles having a non-ionic
DETD
```

surfactant as a surface modifier adsorbed on the surface thereof and a charged **phospholipid** as a cloud point modifier associated therewith, which cloud point modifier is present in an amount sufficient to increase the. . .

DETD . . . method of making nanoparticles having a non-ionic surfactant as a surface modifier adsorbed on the surface thereof and a charged **phospholipid** as a cloud point modifier associated therewith, said method comprising contacting said nanoparticles with the cloud point modifier for a.

DETD . . . a composition comprised of nanoparticles having a non-ionic surfactant as a surface modifier adsorbed on the surface thereof and a **phospholipid** as a cloud point modifier associated therewith, which cloud point modifier is present in an amount sufficient to increase the.

DETD Wet grinding can take place in any suitable **dispersion mill**, including, for example, a ball mill, an attritor mill, a vibratory mill, and media mills such as a sand mill.

DETD Sterilization takes place in the presence of cloud point modifiers such as charged **phospholipids**.

DETD Examples of cloud point modifiers include charged phospholipids. Charged phospholipids include any lipid having a net charge, i.e., any ionic phospholipid with a net positive or negative charge. Examples include such phospholipids as the synthetic phospholipid dimyristoyl phosphatidyl glycerol (DMPG), 1-palmitoyl-2-oleoyl phosphatidyl-serine, DL-alpha-phosphatidyl-L-serine-dipalmitoyl, and cardiolipin (diphosphatidyl glycerol). Synthetic phospholipids are typically available in high purity and are relatively stable and physiologically tolerable. A preferred phospholipid is a negatively charged phospholipid. A preferred negatively charged phospholipid is dimyristoyl phosphatidyl glycerol.

DETD The charged **phospholipid** can be present in an amount of 0.005-20%, preferably 0.01-15%, more preferably 0.05-10%, by weight based on the total weight.

DETD . . . The purpose of this additional non-ionic surfactant is to help mask the charges on the surface of the nanoparticles containing phospholipids according to the present invention. Masking these charges imparts longer circulation time for the nanoparticles used in intravenous applications.

DETD . . . invention further discloses a method of making nanoparticles having a non-ionic surface modifier adsorbed on the surface and a charged **phospholipid** cloud point modifier associated therewith, comprised of contacting said nanoparticles with the cloud point modifier for a time and under. . .

DETD Effect of **phospholipids** on the particle size of WIN 8883/Tyloxapol nanoparticles.

DETD Samples were prepared according to the following general protocol. 0.001 grams (g) each of the tested **phospholipids** was weighed into individual 2 ml vial. Then, 0.5 ml of WIN 8883/Tyloxapol nanoparticle suspension comprised of the diagnostic agent. . .

DETD The following phospholipids were tested:
DETD TABLE 1

Effect of **Phospholipids** on the Nanoparticulate Suspension Upon Autoclaving

Mean Particle Size

Zeta Potential

Additive (nm) (mV)

Samples in the following study contained 15% WIN-8883 and.

DETD Effect of **phospholipids** on the particle size of WIN 8883 nanoparticles with other surface modifiers.

DETD The procedure described in Example 1 was used to examine the effects of the **phospholipid** DMPG on nanoparticles prepared with surfactants such as T908, DM970 (Rhone-Poulenc), RE960 (Rhone-Poulenc) and CO990 (Rhone-Poulenc). DM970 and CO990 are. . .

DETD The procedure described in Example 1 was used to examine the effects of various **phospholipids** on nanoparticles. The results of these experiments are shown in Tables 4 and 5.

DETD TABLE 5

Phospholipid

(121° C./20 min)

		(nm) Polydispe	rsity
None	no	159 0.143	
0.5%	POPS		
	yes	174 0.157	
0.2%	POPS		
	yes	164 0.137	
0.5%	DPPS	•	
	yes	266 0.137	
0.2%			
רויזייםרו	Tffoata	of various phospholimids on	the e

DETD Effects of various **phospholipids** on the cloud point of tyloxapol, DETD Most **phospholipids** with negative charge raise the cloud point of tyloxapol and stabilize the particle size after 121° C. for 20 minutes...

DETD

TABLE 6

Phospholipid		Cloud	Point (°C.)
none	· · · · · · · · · · · · · · · · · · ·	96	<u></u>
0.1%	POPS	>130	
0.5%	POPS	>130	
0.1%	DPPS	117	
0.1%	DPPE	96	
0.5%	Cardiolipin		
		120	·
0.1%	Cardiol	ipin	
		>130	

CLM What is claimed is:

. said therapeutic or diagnostic agent, said nanoparticles having from 0.005 to 20% by weight of said composition of a charged **phospholipid** as a cloud point modifier on the surface of said nanoparticles, said method comprised of contacting said nanoparticles having said. . . 9. The method of claim 1 wherein said **phospholipid** is diacyphosphatidyl glycerol.

10. The method of claim 1 wherein said **phospholipid** is dimyristoyl. phosphatidyl glycerol.

=> log y COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 157.03 196.21

FULL ESTIMATED COST

STN INTERNATIONAL LOGOFF AT 21:23:21 ON 11 JUL 2007